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The New England
Journal of Medicine

VOLUME 202 MAY 15, 1930 NUMBER 20

VACCINATION*

BY JAMES P. LEAKE, M.D.†

THIS afternoon I should like to consider with you the disadvantages of vaccination and how to avoid them, as well as the advantages of protective inoculation and how to secure them. I believe that we should frankly seek for the former, since some disadvantage must be apparent to certain people, otherwise vociferous opposition would not be so long maintained. The psychological reasons for this opposition are beyond my power to analyze, but there are a few tangible reasons why an unprejudiced person, without full information, might be in doubt on the vaccination question or even be averse to the practice.

Aside from inaccurate stories about vaccination, which become current, the most potent, and to my mind, the most justified reason for hesitancy is grounded in the problem of sore arms. As physicians we are to blame for not evaluating this and correcting it sooner; our lack of appreciation is due partly to the following of the old custom, which is embodied in the present German law (enacted in 1874) and in the English practice, of setting the date for inspection of the vaccination at 7 days after the inoculation. Probably the selection of the seventh day goes back to the time when arm-to-arm vaccination was practiced, and it was necessary to have arms in the relatively early stage of reaction so that the "lymph" could be transferred to other vaccines. The day week is also a convenient time for uniformly avoiding the Sunday holiday. Possibly, but not probably, there was an idea that some of the early reactions, little understood at that time, might be observed on the seventh day, but missed if the inspection were made later. Whatever the reason, the vaccinating physician's order to the vaccinee to "come back a week from today" has resulted in the physician's missing the instruction which he might have obtained as to the actual size of the lesion ultimately produced by the vaccination and the amount of the reaction at its maximum. The most favorable times for inspecting the primary inoculation are 10 days after vaccination, when the maximum reaction is usually just past, *and* (not *or*) 15 days after vaccination, when the vesicle should have almost completely dried up.

Even though, as frequently happens in infants, the vaccinated person may not be troubled at all, primary vaccination, nevertheless, causes no small reaction, and in older children and adults it may be considerably discommoding for a few days. If the vaccination has been properly performed and cared for, this period of discomfort is very transient, and healing is prompt. Perhaps the chief reason why, at times, the vaccination is more severe than it should be, and the healing is delayed, is to be found in the unnecessarily large area covered. Our first point to avoid, then, is the vaccinating of an area larger than necessary. We must remember that even with a single point of insertion, the vesicle spreads and may normally reach a diameter 10 millimeters wider than the insertion. Beside the known area covered by the vaccination, at times an unexpected spread takes place on account of vigorous preliminary cleansing of the skin, thereby opening channels for implantation. The wiping off with acetone, alcohol, or soap and water followed by dry gauze or cotton, should therefore be very gentle, as should also be the wiping away of the vaccine after the vaccination.

The actual amount of living vaccine implanted is of weight in determining the mildness, or severity, of the vaccination process. It is, accordingly, recommended for primary vaccinations that not more than 10 pressures with the side of the needle be made, if the multiple pressure method of vaccination is used. To keep a small number of pressures within the 3 millimeter area is also easier than if more are made.

Granted that rarely a somewhat severe reaction does follow vaccination, this is a cheap price to pay for protection against the disastrous disease, variola. We cannot expect to get something for nothing. The protection afforded by vaccinia against smallpox is more nearly perfect than that which one can obtain artificially against any other disease. At the same time, conditions are changing. It was formerly well worth while to undergo variolization, that is, inoculation with smallpox itself, when the virulent smallpox was always at the door. And later, when vaccinal protection became somewhat prevalent and the danger was thereby reduced, or rather, made more occasional than constant, a very sore arm was nothing compared to the horrors of the pest house. Now, however, when efficient health organizations, appreciation of the

*Read before the New England Health Institute, Boston, April 14, 1930.

†Leake—Surgeon, United States Public Health Service. For record and address of author see "This Week's Issue", page 969.

benefits of vaccination, and a rather general application of its immunization are to be expected, the dangers are much less. Even the timorous opponent of vaccination enjoys a protection to which he is not entitled, conferred on him by the regard his fellow-citizens have for the general welfare.

Added to this reason for ameliorating the vaccination "take" is the change which has come about in the character of the smallpox infection. Mild smallpox has probably always existed and is found even now in relatively unvaccinated and unhygienic regions, which we think of as foci for virulent smallpox, such as China. But the greater prevalence, at present, of the mild strains of smallpox as compared with the severe, over most of the Western World, is perhaps not entirely fortuitous. Community hygiene and vaccination are as good indices of the advance of civilization as any. Even thorough-going isolation of smallpox patients is a comparatively recent development. It has thus gradually come about that a case of severe smallpox is handled fairly promptly as regards the welfare of the community. The patient has been more efficiently isolated since knowledge of microbic life has become more general, and those who have been in contact with him are vaccinated and watched for the first signs of the disease, while the knowledge of the presence of severe smallpox has become "news" and has instigated general voluntary vaccination of the population. All these measures have tended to lessen markedly the total number of cases of the severe disease.

If, by chance, the strain of the disease cropping out is a much milder one, this restraining mechanism is often not brought into play. The fear of impending death is no longer a factor. After the grippe-like symptoms preceding the eruption, some of the patients may feel in comparatively good health except for the breaking out. They are not automatically prevented from moving about and spreading the infection to their neighbors, and generally the disease comes to be regarded as not dangerous to life so that restrictive measures are avoided if possible.

Thus the severer strains tend somewhat automatically to be dampered, while the milder have comparatively free course if the community is not well vaccinated. Paradoxically, this is true in spite of the fact that the milder strains are less infectious (fewer cases will occur among a hundred exposed) and is more easily prevented by vaccination. One vaccination at school age will usually protect against the milder strains, while one should have been vaccinated not more than five to twenty years previous to exposure to count on an equal grade of protection against the severe forms.

The strains tend to breed true. Thus, though an occasional case may be very severe during a mild outbreak, and mild cases are found among the unvaccinated even when infected from a virulent strain, we cannot point with certainty to an instance where the infection originally mild became persistently severe, or where the reverse occurred. Such a change must, however, in the light of our present information, be regarded as entirely possible. This question of possibility of change of virulence, which, of course, is a prominent one at present, Dr. Chapin having contributed ably to its study, is practically not very important. Such a change, if it occurs, must be very rare. We are always under the menace of the introduction of severe forms as world travel becomes easier, and the mere persistence of the mild form shows the great liability of the severe type to spread if introduced.

In the District of Columbia there occur among persons coming from less thickly settled Western regions, where vaccination has been neglected, occasional instances in which the history does not agree with the immunity found. In such cases there has been no previous vaccination and no attack of smallpox is known, but an attack of chicken pox is remembered. Yet, on test, an entirely typical reaction of immunity is obtained. This never happens with individuals from Eastern cities having efficient health administrations. On further questioning it is often discovered that what was called chicken pox was in all reasonable probability an attack of smallpox; for example, both adults and children were equally affected, but all the vaccinated members of the family were spared. For this and similar reasons it is believed that the reported incidence of smallpox in the United States is much less than the actual incidence.

At any rate, the predominance of the mild types of smallpox has somewhat changed the vaccination situation as regards technique. Any of these communities where the mild forms prevail are, of course, fertile soil for the chance introduction of a virulent strain, as has been repeatedly shown, but against mild smallpox it is logical to use a milder vaccination. We are buying a somewhat cheaper article than in the old days when we purchased protection against the constant threat of the virulent disease, and we should get it at a cheaper price.

In connection with this milder vaccination which we are now urging, there is a matter which deserves our attention. Particularly on the other side of the water it is believed that single insertions and small areas do not give adequate protection. We in the United States have held that while there is some direct relation between the size and number of insertions, on the one hand, and the degree and length of immunity, on the other, in the presence of actual smallpox peril, this is not enough to take into practical consideration when compared with the importance of the recency of vaccination. In England the advocacy of multiple and large insertions has been based on tables, especially those of Masson and of Cameron, showing a lower case fatality rate in patients with four scars of previ-

ous vaccination than in those with fewer, and in those having an area covered greater than one-half square inch, than in those with a smaller area. Cameron's figures, from the 1901-1904 epidemic in London, give 5.4 per cent. fatality in patients having four or more vaccination scars, and 17.9 per cent. in those with one; also 6.95 per cent. fatality in patients whose total scar area was one-half square inch and over, but 16.9 per cent. with less than one-third square inch area. It may be remarked that patients with the larger number of scars and larger scar areas are more likely to have been vaccinated with the potent Government vaccine than are the others, also that the aim of vaccination is not merely to prevent death from smallpox, but to prevent the attack of smallpox. In the United States the immunity to smallpox, as tested by the immune reaction in college students, has been found to be not significantly related to the size of the vaccination scar, provided there was any vaccination scar at all. M. D. Mackenzie and E. H. W. Elkington, for the English Vaccination Committee, reporting in July, 1928, have performed similar tests with British recruits, which are recorded in more detail, and are also published in the *Journal of the Royal Army Medical Corps* for September and November, 1928. They found that immunity was not related to the number of scars, but to the size of the scar area. However, the average day of maximum reaction was nearly the same whether the scar area was large or small, the smallest scars giving the figure 6.8 and the largest 5.2, or, taking the median day of maximum reaction for each of the four groups into which the cases were divided by size of scar, the figures are 7, 7, 7, and 6,—surely not a great difference in consideration of the inconvenience, the retardation of healing, and the risk of infection from a vaccination insertion larger than the smallest one which will insure success. We are glad to see that the first recommendation in the conclusion of the English Committee is that "in place of the officially advocated four insertions, trial be made of vaccination and re-vaccination in one insertion with a minimum of trauma". We are also glad to see that Mackenzie and Elkington used as a measure of the degree of susceptibility to variola the day of the maximum reaction in immune and vaccinoid reactions.

Absolute proof that this is a measure of immunity (the more rapid the maximum, the higher the immunity) is lacking. Indeed, such proof in a series of smallpox cases sufficiently large to satisfy everyone will always be impossible, and it would never be possible to test the immunity to variola and to vaccinia on the same person without one infection having an influence on the other. The reasons for considering the date of maximum diameter of the erythema after vaccination as indicative of the degree of susceptibility to smallpox are so cogent for practical purposes, however, that it does not seem likely that they will ever be seriously questioned. Some minor criticisms might be made of the English work, but in general the results are similar to those obtained in this country; there is only a slight difference in immunity with scars of various sizes, such a difference as might disappear if the series were longer or repeated under slightly different circumstances. The English work also shows that multiple scarification, parallel or cross-hatching, gave more severe reactions and required some hospitalization, while narrow insertions were less severe and required no hospitalization.

A second recommendation to be made with a view to avoiding any of the disadvantages of vaccination is that the vaccination site remain uncovered by any dressing attached to the arm. This goes against the surgical instinct of many who regard vaccination as a minor operation and who, therefore, would protect the site against any outside infection whatever. The only really convincing evidence is the visual experience of some two hundred vaccinated arms with primary vaccinias at an ordinary vaccination clinic, alternate arms being left without dressing, the others dressed in any way desired. The difference on the tenth day will be plain enough. The fact is that vaccination is not an ordinary surgical operation. The skin may be cleansed, but not really sterilized before the vaccination—vigorously applied or strong antiseptics are likely either to enlarge the vaccination area or to render the vaccine inert. The vaccination vesicle should not become a pustule and if it is kept dry and cool, with free circulation of air over the intact epithelium, the fluid exudate dries up rapidly after the height of the reactions is reached, forming with the epithelial covering a brownish-black crust, which protects more perfectly against outside infection than does any artificial covering. Dressings cause maceration and prolong the drying up. They are likely to adhere to the vesicle so that the natural epithelial covering or crust is torn off when the dressings are removed, leaving a raw surface which continues to exude serum and is slow to become covered in with new epithelium.

Two conditions which have attracted attention out of all proportion to their actual frequency are post-vaccinal tetanus and post-vaccinal encephalomyelitis. The former, tetanus, is predominantly a problem for the United States, while the latter occurs chiefly in Europe. We owe most of our exact knowledge about post-vaccinal tetanus to Dr. Charles Armstrong of the Hygienic Laboratory. It has always been very rare, and is now, we hope, on the way to become almost extinct, due to the gradual diffusion of knowledge as to the steps to be taken to prevent it. For the prevention of both post-vaccinal tetanus and post-vaccinal encephalomyelitis the means are, in general, the same, but the emphasis is on different points. Neither appears to be due to the vaccine itself, but rather

to the germ of tetanus or the virus of the peculiar form of encephalitis already present in or on the body. For prophylaxis in both cases we should vaccinate with a small insertion, leave the site free from dressings, and preferably perform the primary vaccination in infancy with sufficiently frequent revaccinations thereafter to keep the immunity high. Post-vaccinal tetanus is relatively so rare in Europe that some European workers have questioned the diagnosis of the cases reported from the United States. There can, however, be no question but that it has occurred in some hundred cases in the last few years. The prevention of tetanus is practically certain if very small insertions are used, and the vaccination is left with no dressing. The latter is probably the most important point. Tetanus, of course, is of local development; the toxin is elaborated by the bacilli growing in one place. If the vaccination is superficial and the vesicle dries rapidly after its development, the moist anaerobic conditions which tetanus bacilli require to flourish are lacking. Cases of post-vaccinal tetanus practically never occur after revaccinations; this indicates that especial care should be taken with primary vaccinations and that the somewhat more superficial and milder development of the secondary vaccination does not favor the growth of the tetanus organism.

With post-vaccinal encephalomyelitis, on the other hand, if it really *is* an infectious disease, the infection is probably not localized at one site; it is closely related to, or identical with, the encephalitis which occurs after measles and other communicable diseases. Reducing the size of the area vaccinated, and the dose of vaccine, seem to be important here. Equally important is the performance of the primary vaccination in infancy, with sufficiently frequent revaccination to keep the subsequent "takes" down to the grade of immune reactions. The importance of infantile vaccination has not been sufficiently stressed in the United States. It should be on the mind of every good pediatrician, as is diphtheria immunization. It even belongs to the obstetrician. All infants born at the hospital in Panama City are vaccinated on the third day after birth, and there is no good reason why this should not be done earlier. With diphtheria immunization, on the other hand, a wait of several months is desirable. School age is the only practicable time to require general vaccination, when the individual first comes in promiscuous contact with others outside his own family, and thereby becomes to that extent mutually responsible with them for the general health of the group. Vaccination of infants, however, voluntary on the part of the parents, has many desirable features. It is the care of the *primary* vaccination which is of the greatest importance as regards avoiding complications, and if this primary vaccination is performed in infancy, at the time in a person's life when the "take" is the mildest and the general reaction the least, there is just so much clear gain. Moreover, complications such as tetanus or encephalomyelitis, as has just been mentioned, are practically entirely prevented by infantile vaccination. The secondary vaccination, required at school age, thereby becomes a very mild affair and with these two vaccinations performed, any subsequent vaccination which might be advisable on account of the presence of smallpox, if not postponed too long will likewise be mild. In addition to the relative mildness of the general reaction in a properly performed infantile vaccination, infants' arms are less liable to bruising or dirt contamination than the arms of runabout and kindergarten children. Protection is also assured in case there is a smallpox visitation before the time for school vaccination.

One sometimes hears mentioned, as a disadvantage of vaccination, uncertainty as to its protective power. This, of course, is a fallacy. It is the most nearly perfect form of immunization which we have against any infectious disease. The old doctrine of being able to make one vaccination so vigorous that it will protect throughout life is dead, but it has left a popular impress. Revaccination every five to twenty years is advisable but will never become general unless there is some direct urge. The required revaccination of persons entering certain industries, where promiscuous public contact and opportunities for receiving and transmitting infection are great, should be more general. At Blockley Hospital (Philadelphia General), where so many of the great physicians of this country have been trained, every patient is vaccinated on admission, no matter what the diagnosis.

To designate a person's immunization against smallpox we should, therefore, not classify them merely as "vaccinated" or "unvaccinated," but determine the recency of their vaccination, and if the reaction obtained was not a primary vaccinia, we should know whether the vaccine used was of full potency. At present we can count on vaccine being fully potent as it leaves the producing laboratory. Its subsequent course is more uncertain. Only the smallest amount consistent with current needs should be obtained at one time, and this should be kept below freezing; for example, in the ice-making compartment of an electric refrigerator. There is no danger of keeping smallpox vaccine too cold. In case storage below freezing is impracticable, the vaccine may be kept in a jar or can which is in constant contact with ice, not merely on the shelf of an icebox. Preferably the ice should be piled on top of the container. With any of these methods the condensation of the moisture in the air is likely to rust the needles unless they are in glass-sealed capillary tubes, and also to moisten the labels so that they come off or become illegible. It is, therefore, well to remove the needles and make a note of the lot number and the expiration date before a package of vaccine is placed

in the refrigerator. Under such storage conditions the vaccine is fully potent long after its expiration date. Without such storage the vaccine may give good "takes" in primary vaccinations up to its expiration date or after, and yet not be sufficiently potent to indicate immunity or to protect with certainty when used in a smallpox outbreak, where not 99½ per cent., but 100 per cent, of success in primary vaccinations is desired.

It is unnecessary to speak to health officers on the advantages of vaccination. Vaccination, and only vaccination, protects against smallpox. Smallpox, though not in New England an ever-present menace, as is diphtheria, is an occasional visitor, and may strike with a heavier hand, causing more deaths than does diphtheria. Furthermore, smallpox is more completely preventable than diphtheria and the completeness of its prevention is, perhaps, as good a measure of the civilization of a community as is any other criterion. The fact that vaccination protects against smallpox is such a commonplace, and is so evident to anyone at all familiar with the situation, that accurate studies of the degree of protection are actually lacking. No one has been willing to expend the time and the funds necessary to measure with any exactness the degree of protection against smallpox which is obtained by the various minor groups into which a population can be divided as to their vaccinal status. This would take intensive and careful work during an actual outbreak of smallpox, with as much time spent on the portion of the community which did not contract smallpox as on those who did. Some studies of this nature were undertaken by the English Vaccination Commission of 1888-1896, but the persons exposed were, in general, classified merely into the vaccinated and unvaccinated—a method which has been shown to be entirely inadequate. Perhaps one reason for the thrift which has prevented such studies is the fact that figures found for one community and one particular strain of smallpox would not be transferable to another community and a strain of smallpox of different infectivity and virulence.

We have, of course, figures showing the vaccinal status of those who contracted smallpox, but similar figures are lacking in appreciable quantity as to those exposed to the same extent who did not contract the disease. We have, also, figures showing the incidence of smallpox in communities which differ as to required vaccination, but here other factors must be weighed: the amount of exposure to foci of smallpox (for example, in Australia, on the one hand, and in Germany or Japan, on the other, different conditions prevail), the thoroughness with which the laws are carried out (inspection of the arms of school children for vaccination scars is sometimes very enlightening), and the completeness with which smallpox is reported. In general, smallpox is the most accurately diagnosed and uniformly reported of any of our infectious diseases. This mass of data all points in one direction, but the most convincing proof of all is actual experience with the disease. There is not a health officer who is actually responsible for the handling of any number of cases of smallpox but believes in and practices vaccination. The word to the doubters is to go to smallpox hospitals in person and find out.

In epidemic after epidemic of virulent smallpox, patients can be found suffering from the disease who state that they once were opposed to vaccination, but wish they could get to their unprotected friends to tell them what they have seen. The disadvantages of vaccination of which we have been speaking, this afternoon, are largely controllable and very minor compared to the protection which it confers. There are even figures which indicate that vaccination gives rise to some non-specific immunity, so that the vaccinated are slightly less liable to other infections than are the non-vaccinated.

With faster ship and airplane travel, with the increase of communication between our country and places where virulent smallpox is frequent, with native control growing in the far East, particularly India and the Philippines, it behooves us to look to our defenses.

Unfortunately, man is forgetful, and experience has shown that the only means of securing the protection of a community is that vaccination be required therein. Even physicians who believe in vaccination will neglect to vaccinate their own children unless a definite time is set within which it must be done. Postponing vaccination until the epidemic comes is locking the stable after the horse is stolen. Those responsible for the supply of vaccine, if the demand depends on such chance explosions, cannot be expected to maintain proper stocks of a living material. The state requires the education of our children. Why should not their protection be required, in spite of ignorance or prejudice on the part of their parents or guardians?

EARLY PSYCHIC INVALIDISM*

BY J. KASANIN, M.D.†

TWO years ago, I had the opportunity of visiting some of the psychiatric clinics in Russia. The physical appearance of the buildings, laboratories, wards, etc., did not show much difference from ours, although some of the equipment was rather antiquated. The staffs of these hospitals were working on the same problems in which we are interested here at present: the study of metabolism in schizophrenia, the rôle of personality in mental disease, and the question of the physical constitution in the various psychoses. On the whole, there was as little or as much originality as in America. There was rather an intense interest in American psychiatry, especially mental hygiene, habit clinics, the treatment of behavior disorders, the preschool clinics—about all these I was questioned in great detail. Adolescence delinquency, as you know, is a very serious problem in Russia.

On the clinical services I was shown a rather interesting syndrome, which is the subject of my paper. I was introduced to a few patients who, until very recently, occupied important positions in the Soviet Government. Many of these were originally laborers, who by virtue of the Revolution and its idealization of the manual worker, became important executives in the various local governments. A good many of the common laborers did unusually well in the new jobs, while others broke down after having tried it for several years with apparent success. Gannushkin, the professor of psychiatry at the First Moscow State University, studied intensively this group of cases and described them in his article entitled, "Acquired Psychic Invalidism"[1]. In his original description of the syndrome Gannushkin depicts a clinical picture found in comparatively young men, between the ages of twenty and thirty, which consists essentially in marked impairment of intellect as well as some involvement of the emotional life of the patients. It does not resemble any of the functional psychoses, but it bears some semblance to the psychic insufficiency found in the early stages of cerebral arteriosclerosis. One gets a picture of a psychic invalidism which comes in early life and bears an imprint of organic changes. Gannushkin states that this clinical picture has come to the attention of psychiatrists quite recently on account of the local conditions in Russia which have crystallized such cases.

As an etiological factor, one deals with tremendous work overload and responsibility in people who were suddenly plunged into intellectual occupations, resulting in premature exhaustion of the whole organism and especially the central nervous system. The situation was complicated by the fact that quite immature and untrained individuals had to deal with tasks requiring tremendous ability and responsibility. The factors of physical and mental fatigue are in these cases closely interwoven. These patients, at a rather early age, were doing strenuous work for fourteen, sixteen or even eighteen hours a day. This went on day after day without any interruptions and vacations. The physical conditions of work and the general living conditions were on an extremely low level, with inadequate food and extremely poor housing. The only interruption in the work took place when an individual became sick, or in case of women, when they had delivery or abortions. As a rule, there was a return to work before convalescence took place. In the cases observed, individuals were rather unfit for intellectual work, which resulted in a great feeling of inadequacy and brought on fatigue much sooner. Combined with these factors there was a tremendous emotional element, which consisted in the feeling of responsibility, a constant fear for one's own life as well as the lives of others.

Gannushkin has seen young men, between the ages of seventeen and eighteen, who for several years have occupied very important executive positions and who have done rather unusually well in spite of their youth and inexperience, invoking a great deal of admiration from their superiors. Many of them have broken down completely. He has known young enthusiasts who performed heroic acts as a routine, constantly in danger of death or worse than this, capture, with torture. Cases of girls are described, who at the age of eighteen or nineteen, had already had children, had gone through terrific experiences of civil war, and who were carrying tremendous responsibilities in their work, at the same time studying in schools. Two or three years afterwards many of these girls were found to be ill, weak, and have completely lost their vigor and originality.

In addition to the marked intellectual and physical fatigue, there are secondary etiological factors:

1. Cerebral traumas, especially concussions.
2. Various infections, most frequently typhus and typhoid.
3. Toxic factors, such as alcohol and cocaine.

Any one of the three above-named factors can cause a marked disorganization of the psychic life; in the cases cited by the author, many of these constituents were present.

The clinical picture consists largely in marked reduction of efficiency. The quality as well as

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the volume of work is impaired. Memory is not as keen as previously, the grasp of things is reduced, and together with this, one finds marked fatigue. One cannot speak in these cases of any personality change in the same sense as one describes it in schizophrenia. In addition to the intellectual impairment one often finds marked irritability with explosive temper, outbursts, various somatic complaints such as headaches, fainting spells, and at times depression as a reaction to a sense of insufficiency.

The condition develops rather slowly and leads to an irreducible intellectual impairment. The patients who previously were able to do high-grade work can do, now, only simple mechanical tasks. As an illustration I shall quote a case history from an article by Kraitz and Melichov,[2] who have studied intensively the whole subject of early cerebral arteriosclerosis.

A. B., male, aged 28, a college student, was admitted to the psychiatric clinic of the First Moscow University in March, 1927, with a complaint of mental and physical fatigue, loss of memory and inability to go on with his work in college.

The patient was brought up in a small village in Russia. The early infancy and childhood history is negative except that as a child he was quite stubborn and kept to himself. He graduated from the village school at eleven and then helped on the farm. At fifteen he got a job as a shepherd boy and spent a lot of time settling the problems of the universe. At sixteen he migrated to a nearby large city and became an apprentice in a steel mill. In the factory he was ambitious, independent and rather unfriendly. Very soon he joined a secret political society. In 1917, right after the Revolution, the mill was confiscated by the workers, and the patient was subsequently elected to the Board of Directors. He tried to keep the mill running. The engineers sabotaged and he had to work very hard, sleeping only four hours a night. At the same time he ate very little on account of shortage of food. He was quite run-down when, in 1919, he was sent to the front as a Commissar of the Red troops. Shortly afterward he was captured by the Whites and tortured. One night he jumped off a train going at a high speed, into the river underneath. He fell upon the low bank of the river and was unconscious until morning. For some time afterward, he had severe headaches. For several weeks the patient was doing propaganda work in the rear of the White army until he was arrested and was condemned to die. He was kept for three weeks in a cellar awaiting execution and finally was taken to the gallows with twenty-two other prisoners to be hanged. At the same time, news was received that the Red troops were advancing so that the executioners had time enough to hang only ten men. The thirteen remaining prisoners, among whom was the patient, were lined up before a squad. Only one shot was fired and all the prisoners fell to the ground. The patient was only slightly scratched by a bullet and he was able to escape. He had to run for seven miles in his underwear. For a long time he had to hide himself and had no food, but he finally joined his own troops. Several months afterward, during the explosion of a large shell, the patient was thrown up into the air and sustained a concussion of his brain. He was unconscious for two hours. For some time afterward the patient had peculiar hysterical spells in which he lived through his experiences—he shouted, gave commands, thought that he was tortured, etc. These subsided, but he had nightmares with a similar content. In 1922 the patient had typhoid with a prolonged and difficult convalescence.

From 1922 to 1924 the patient had headaches, dizziness, tinnitus and paresthesias in his back. He considered himself well and he was appointed as a collector of the grain revenue. The work was difficult and dangerous. It was during the period of military communism; the peasants didn't want to give up the grain, hid it and made several attempts to kill him. On the other hand, he was in danger of a court martial if the collections were insufficient. The patient noticed that although he could do his work well, he had some difficulty in concentration and he had to keep a detailed notebook as he could not trust his memory.

In 1926 he was admitted to the Moscow University on the basis of his record, but very soon afterward he noticed that the work was too difficult for him. He became, very often, dizzy and confused. A slight effort was accompanied by a marked feeling of fatigue. He could not grasp things which were very easy to him before. He complained of various somatic sensations. At home he became very irritable, quarrelsome, selfish and antagonized all his friends and his family.

Physical examination on admission to the hospital showed a definite sclerosis of the peripheral vessels, slight enlargement of the heart with accentuation of the second sound. Blood pressure 135/100. The neurological examination was essentially negative. The fundi showed a beginning sclerosis of the vessels. Examination of the blood and cerebral spinal fluid was negative. The mental status showed an extremely suspicious, sensitive, irritable individual well oriented in all fields, with no delusions or hallucinations. There was some feeling of resentment toward officials and friends because they did not give him a chance. Psychological tests showed definite intellectual impairment. The memory quotient was below normal. There was a rather good insight. The patient was discharged from the hospital, unimproved. He went to a southern sanatorium for a few months and when he returned he was advised to take a job requiring very simple mechanical ability.

The pathological side of the syndrome was studied by Steffko[3] and reported in his paper on pathological changes in the cortex in tuberculosis and early psychic invalidism.

Thirty-seven brains were studied and divided into three groups. In the first group of twelve cases the brains belonged to people who were engaged in intellectual work. In the second group of eleven cases the brains were from people who were manual workers but who suddenly, on account of the revolution, were given positions requiring a great deal of intelligence and responsibility. In the third group the brains belonged to people engaged in simple manual work. All these patients died from pulmonary tuberculosis. The brains of the first and second groups showed a large number of minute adhesions of the dura as well as of the pia and the arachnoid in the region of the vessels. These adhesions were found mostly in the frontal lobes and were about two to three millimeters in diameter. A microscopical examination of these areas showed that the brain coverings were adherent to the adventitia of the pia vessels. Together with this one could see small hemorrhages, which consisted of migration of red blood corpuscles by diapedesis with connective tissue

proliferation. The outer wall of the pia vessels was often thickened, forming an aneurysm-like convexity. The blood vessels showed a hyaline degeneration with marked sclerosis, leading to endarteritis obliterans. Some of the smaller vessels were completely obliterated.

In the study of the cellular pathology the important thing noticed was the shrinking of the pyramidal and ganglion cells in the third layer of the cortex. There was also noted a marked sclerosis of the ganglion cells, using the term in Spielmeyers' sense. The degenerative changes in the cells consisted in the deposit of fatty pigments and precipitation of basophilic granules. In the cortex, small areas of neurogliar proliferation and islands of spongy tissue were also noted. These changes were described by other pathologists in some of the acute and severe toxemias. The most significant pathological changes were found in the second group of individuals who were engaged in highly specialized work for which they were not prepared and which was beyond their ability. In this group, microscopically, there was found some oedema of the brain and also a good many soft areas.

Inasmuch as tuberculosis, as such, produces very little change in the central nervous system, Steffko feels that the emotional and intellectual strain to which these individuals were subjected was responsible for the appearance of the early sclerotic changes in the brains. What takes place is a premature aging of the brain cells on account of their special vulnerability, due to previous toxemias and infections. Many of these patients have suffered hunger and about fifty per cent. of them have had typhoid fever as well as typhus. Inasmuch as the patients in the second group showed the most pronounced changes in the central nervous system, the author comes to the conclusion that prolonged and unusual emotional and intellectual strain results in early appearance of arteriosclerosis in the brain. This parallels the conclusions obtained by Gannushkin in his description of a new clinical syndrome of early psychic invalidism.

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THE UNITED STATES AND NICARAGUA CO-OPERATE IN SANITARY SURVEY OF NICARAGUA CANAL ZONE

Since the arrival of Dr. Jacinto Perez, Director General de Sanidad of Nicaragua, and Captain J. J. Figueras, Medical Corps, United States Army, at San Carlos, the sanitary survey of the Nicaragua Canal Zone has been progressing satisfactorily. The primary purposes of the survey are to determine the sources of diseases prevalent in the area with special attention to human carriers, prevalence of insects and the breeding places of those known to transmit diseases; the extent to which the present inhabitants of the zone of the canal are infected by these diseases; and the water supply for domestic purposes available in the zone and the incidence of disease conveyed by its present use. This sanitary survey will be of enormous benefit to the present inhabitants of the zone, as it will determine the character of the diseases now prevalent in the area and, where practicable in the field, treatment for the cure of the diseases will be given. The most prevalent diseases have been found to be hookworm, dysentery both amoebic and bacillary, and malaria. Some 750 individuals have been examined in the San Carlos area and specimens have been taken for laboratory study.

In order to facilitate the above work a map of San Carlos was prepared, and census established, individual containers for specimens distributed and cards for tabulated index prepared in accord with the census. Most of the specimens collected were brought to Granada, where they will be studied and diagnosed. The personnel at San Carlos is continuing the hookworm investigation. Upon completion of such work at San Carlos the party will probably move to Greytown where they will follow the same process, working towards Colorado Bar. Upon completing the necessary work at this point the personnel will be transported to Camp Hoover, Ochoa, where they will cover the area to include Castillo. Upon completing the work at Castillo the party will return to San Carlos and will then go to the town of Rivas.—*Bulletin of the War Department.*

TESTIMONIALS FROM DOCTORS

The National Better Business Bureau set forth in an issue of April 29, 1930, that a certain preparation had been endorsed by a considerable number of doctors with a list of their names.

An examination of the Directory of the American Medical Association reveals the fact that no one of this group is registered as holding membership in the American Medical Association.

This evidence is heartening because it shows that men in good standing are not endorsing proprietary medicines and may indicate that doctors are not so open to bribery as may have been suspected.

Members of the profession have been considered as easy marks in pseudo-financial matters but here again there are indications that doctors are growing more worldly-minded.

NEW ENGLAND MEDICAL COUNCIL

Harvard Club, Boston,
February 19, 1930.

THE meeting was called to order at 11 o'clock by President Bryant.

Reading of Secretary's report as follows:

Your executive committee met in Boston, November 20, 1929 and arranged the program which appeared in the call for this meeting.

Following the suggestion made by your President, copies of the records of the last meeting have been sent to all the members of the Councils of the State Societies of New England in addition to the members of this Council.

In order to meet the expenses of the Council each of the Medical Societies of the New England States has contributed $29.97. The total amount thus obtained was $179.82 and the expenditures are detailed as follows: Travelling expense of the members—$126.55; miscellaneous expense including stenographer, lunches for the executive committee, stationery and telegrams—$53.24—leaving a balance of $.03 which added to the $.02 on hand makes $.05 in the treasury.

Dr. Parker suggested at the last meeting that a statement pertaining to the publication of the *New England Journal of Medicine* be presented.

(A brief history of the *Journal* was then given together with an explanation of the terms of the arrangement now in force covering the service rendered to the New Hampshire and Vermont Medical Societies.)

Another request was made at a previous meeting that information concerning the work of the Committee on the Cost of Medical Care should be submitted to the Council. Briefly it may be stated that the committee has been in active operation for about two years. It has been employing experts in fact finding studies covering the various phases of medical service and economic conditions among the people and will pay especial attention to the unnecessary expenses incurred by the people in the use of patent medicine, quacks, etc. There will be analyses of the various attempts to solve problems incident to the burden of illness and later conclusions will be published.

This is a gigantic task. A few statistical reports have been compiled but no conclusions have been published although a series of articles by some members of the committee and others has appeared in the *Survey Graphic* for January 1930.

Anyone who would like all the publications of the Committee on the Cost of Medical Care, who will give his name to me will be put on the mailing list and we have a supply of the *Survey Graphic* and copies will be sent to anyone desiring them.

This seems to be all that is required of the secretary at this time but the suggestion is pertinent that proofs of papers and the reports of discussions should receive early attention in order that publication of the proceedings of the Council need not be delayed.

You are also asked to send a report of expenses so that you may be reimbursed, since each state has contributed to the expense of the meetings.

This report was accepted and ordered to be placed on file.

Dr. Roger I. Lee of Boston was then introduced and presented a paper entitled:

THE RELATION OF CLINICS AND HEALTH ASSOCIATIONS TO THE MEDICAL PROFESSION*

BY ROGER I. LEE, M.D.†

THIS is a very ambitious title and it would take me many days even to touch upon it. I want to say that I happen to be a member of a committee, of which Dr. Paddock is also a member, which has for its field a similar topic to that of this paper. What I say in this paper of mine doesn't reflect any of the opinions of the other members of that committee. It reflects rather briefly my own personal opinions at the present time, and those are subject to change, like all good things, very rapidly, without notice, and very likely our committee as it digs into this subject may find many things that will affect radical changes in my own views.

I think in the discussion of any such problem as this, one has to go back a little into the historical background of the various factors involved, and in going into the historical background, how fitting it is that we sit in the Aesculapian room of the Harvard Club and go back to Aesculapius and Hippocrates as the patron saints of the medical profession.

The medical profession in adopting Aescula-

*Read before the New England Medical Council on February 19, 1930.

†Lee—For record and address of author see "This Week's Issue", page 969.

pius and Hippocrates as patron saints hark back to beautiful Hellenic fragments. The Hippocratic oath even in its translation is one of those rare word combinations that, like passages in the Bible, pass without need of change throughout the ages and suits the spirit of all time.

It is true, however, that our actual medical ethical code in England and America comes from a more recent date, from an English physician. It is true that the spirit of this code is, as must needs be, very similar to the Hippocratic oath. This English physician however had knowledge of the physician, the barber surgeon and the apothecary. Out of this triad was to emerge the physician of England and America, even although in England one can still trace the evolutionary stages. Likewise the English hospitals upon which our older hospitals at least are modelled date back to those days of the physician, the barber surgeon and the apothecary. In this country there are few people who concern themselves with the symbolism of the barber pole and apparently in a few years the terms, apothecary and chemist as applied to an ancient and distinguished profession will be lost.

Even in those early days there were medical societies, guilds, colleges, etc. The temper of those associations can be well understood, because all scientific treatises including of course medical were written in Latin. Today a relic which persists is the Latin form of the medical prescription. As a matter of course these medical associations were for the benefit of the members. This the public clearly understood.

Indeed the public suspected as it does today that the medical associations were entirely for the benefit of the profession. The public did not understand and to a great measure does not understand today why and how the medical association differs from an association of cotton manufacturers or a labor union. The public does not see the distinction between a profession and a business or a trade.

In point of fact the medical profession has had few secrets of any real importance until recent times. And when facts of real importance to the public began to arrive in bewildering confusion, the rank and file of the medical profession was as much confused as the public. The necessary sifting of complicated evidence in regard to a medical discovery takes time. Pasteur was impatient of his critics. The anxious parent of a patient is also intolerant of the delays of conservatism.

Out of the welter of this confusion and those delays there came into being a large number of associations in which the public and the medical profession joined. The object in nearly every instance of these associations was humanitarian. The spirit was that of the Crusades. The tempo was rapid. Action was the byword. These newly organized associations were not bound by tradition. The machinery of the medical association was too slow, the machinery of the regularly constituted health authorities was too antiquated, too cumbersome. The sympathetic public opened its purse and to take one illustration tuberculosis associations had hospitals, clinics, dispensaries and every possible medical and social appliance. This became true of other diseases and conditions, heart disease, cancer, venereal disease, etc. We have posture clinics, well baby clinics, pre-school clinics to a number beyond belief.

Enormously rich foundations enter this field. Insurance Companies undertake experiments in this same field. It is good advertising and if the death rate is lowered it is good business.

Then goaded on in part at least by these associations, whose valuable functions are obviously elastic pioneering, our government authorities, slowly becoming more paternalistic in a world-wide movement, enter the same field from a somewhat different angle.

Now we have the present interesting spectacle: the organized medical profession, a little aloof with its individual members as active participants, the voluntary private associations largely committed to very ambitious programs and rather turning for cover; the regularly constituted health authorities laboring heavily but making slow progress; the public more or less eager for bargains.

It may be true that it is not helpful to state that the Medical Profession neglected to seize its opportunity. The individual doctor has had a large part of all of the good of the situation. The solution would be simple if it were not for the economic aspects. If for example a patient is free to consult the same doctor and get the same service at a Clinic for $1.00, who can blame him for preferring that to consulting the same doctor and getting the same service at the doctor's office for $3.00 or $5.00?

If for example a patient consults a doctor in his office for a cough or a lump and pays $3.00 or $5.00 for a prescription and is not examined, must there not be some opportunity for that patient to be examined in some reputable, authorized fashion, irrespective of the fee? Of course, here the ethics of the medical profession require consideration. The public believes in advertising and likes it. The medical profession does not. And yet we have Public Medical Lectures, etc., etc., even if only one physician has so far appeared in a local paper's daily write-up of "a prominent man a day". It may be that with the change in the times medical ethics may require revision. As I see the solution, it means that the organized medical profession must rigorously widen its horizon. In the first place, its members must be prepared to give the best possible service to the public. They are not doing that now. The doctor, not the combined association, must be the advocate of health examinations, of sputum examinations, of Schick tests, etc. The doctor must be the health adviser, not the nutritionist, the social worker, or the en-

gineer. The organized medical profession not the Hospital Association, or the College of Surgeons should set up standards for hospitals. Committees of the Medical Profession should do much of the work of voluntary lay-medical associations.

The organized medical profession must take the public into its confidence and unlock the faith that the individual so often has in his own doctor but not in a group of doctors. The organized medical profession must also avoid the squabbles of labor unions.

To be sure the members of the profession must get their living from their work. However, if the competition is along lines of the excellence of professional services and not along the lines of a fee tariff, I believe the public will reward an awakened medical profession even more richly than it can deserve.

Dr. Richardson was then introduced.

DR. RICHARDSON: I have purposely avoided attempting to lay out any detailed program concerning the relation of physicians to hospitals and other health agencies, but have tried to treat from a broad general standpoint this relation of the physicians to the medical service, which is not satisfactory at the present time.

(Reads paper.)

THE RELATION OF CLINICS AND HEALTH ASSOCIATIONS TO THE MEDICAL PROFESSION*

BY D. L. RICHARDSON, M.D.†

OF the necessities of human existence food, drink and warmth stand first and next to them adequate provision for the maintenance of health. A long life free from serious or incapacitating illness should be and is more cherished by every man and woman than wealth, fame, or any other accomplishment. When we review the past even a calloused physician is appalled by the number of deaths and the amount of suffering caused by diseases and injuries which are now known to be preventable or curable and while rapid progress has been made by discoveries and better methods of treatment there is no reason to doubt that the future holds in store still greater achievements. We of the present day, however, must accept the situation today as it relates to actual possible accomplishments and make the most of it.

Up to the present era the sick were cared for by their relatives and friends or else fell into the care of charlatans, medicine men, healers of many kinds and physicians, some of whom did their best but whose knowledge was very limited. But intelligent people of days gone by were well aware that those who professed to cure and prevent disease were of little service or else were downright frauds. It is little wonder that physicians were not held in great esteem and their services were not considered worth much in dollars and cents.

Conditions have changed tremendously during the last 50 years. The public is awaking to the fact that the services of a well-trained physician really accomplish something. That they can diagnose disease with a great deal of accuracy. That operations for appendicitis, gall bladder disease, new growths and numerous others not only will save life but relieve suffering and physical incapacity. That contagious diseases can be lessened or stamped out as has been witnessed in the case of yellow fever and typhoid fever. That severe injuries can be repaired and health restored. The fact that modern scientific treatment and present methods of prevention can really accomplish results, has just dawned on the public, particularly during and since the World War. They want this modern medical service perhaps not at any cost but they want it badly, and even now they are devising means to get it.

At the present time there is a National Committee of physicians, scientists, social welfare workers and prominent laymen who are conducting an investigation of the cost of medical care. The laity are largely responsible. Many national associations and foundations are studying this problem. What the solution will be no one knows, but it is perfectly clear that the leadership in bringing better medical service to all the people has passed largely into the hands of the laity. Even state legislators and the National Government are passing bills to make for better medical service.

It is extremely unfortunate that physicians did not see this coming long before the laity. The American Medical Association had a wonderful opportunity many years ago to start investigating how to give better medical service to all the people. Their energies have been devoted to improving the education of physicians and protecting their interests. Efforts to make better doctors are highly praiseworthy but those devoted to improving their financial status could have been better spent on providing better organized medical service. Had the Association grasped its opportunity the problem might now be on the way to solution and the status of the physician would have been greatly enhanced. This holding back attitude has cost dearly. It is only during the last few years that the American Medical Association has shown any interest in public health and last June, for the first time, a committee was chosen by the House of Delegates to study the problem of better medical service. They have started too late.

*Read before the New England Medical Council on February 19, 1930.

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The underlying reason for this failure is individualism and the lack of coöperative efforts among members of the profession. The physician is always complaining of inadequate income and that so much of his time is given to charity but he does not want to lose the position which he holds. That the physician is imposed upon cannot be denied. There is no profession, not even the clergy, who spend so many of their hours each day in charity service. How many physicians have shortened their lives or suffered broken health in service to hospitals, while trying to make a living at private practice!

This situation has, however, led physicians, particularly specialists, into the habit of increasing their charges to those who consult them privately and this fact has undoubtedly been partly responsible for the present laity revolt. Charging fees to those who will pay and spending an undue amount of time in free service is not the proper way out of the difficulty.

The most talked of solution of better medical service is so-called state medicine, the funds to be supplied by taxes and insurance. Germany and England have experimented with this method for many years, but it has proved satisfactory neither to the physician, the public nor the state. Adequate medical service cannot be furnished by the state in this country under present conditions without great cost and even then the public will fail to reap the full benefit. We have only to study the conditions in the majority of state and city owned hospitals and health departments. The interference of politicians is undermining their service. The first group of physicians selected by the state might be of fairly high calibre but the standard would degenerate in a few years. The state would be obliged either to take over part or all of the properties of hospitals and other health agencies or duplicate them at great expense. The physician's pay would probably be inadequate for full time service and if he should supplement it by private practice public service would suffer. There would be lacking that personal interest and feeling of responsibility which a physician shows to his own private patients. There are those who think that home medical service and hospitals can be conducted as one would conduct a factory or build roads. They curse the doctors and hospital superintendents for making costs so high. Let them try it and experience the back fire from the public. Adequate medical service cannot and never will be adequately remunerated. It can only be provided by persons who by virtue of birth or training gladly give of themselves more than they ever expect to receive. But state medicine is in the offing. In some form it is almost sure to come unless some better method can be devised and sold to the public.

There is little doubt that some kind of an organized effort will be tried to provide better medical service. The public want it and if it is honestly and intelligently supplied it will pay in dollars and cents. People should not deceive themselves that it will cost less in the aggregate than it does now for it will cost more. In fact, the extra cost is justified. There is no reason why the average physician and all others who are concerned in the program should not be better paid if the work and the money can be properly distributed.

One possible solution of this great question has received little consideration. For many years now there has grown up in this country a hospital and out-patient service which is the envy of the world. Is it reasonable or sensible to scrap all these institutions or to turn them over to less capable hands? Why should not the hospital and its out-patient department be the unit around which a better medical service could build to take care of all those persons who are not well able to employ their own physicians? The sick are pretty well cared for in the large cities by the many excellent hospitals now in existence. In such cities the principal lack is a home medical service and to a less extent an adequate nursing service. This, of course, leaves the smaller cities, towns and country districts in a less favorable position but if you have not followed hospital construction activities during the last few years in these out-of-the-way places you might be astounded at the number of small hospitals which are already in existence and the number projected. In most parts of the country the people living in such districts are able and willing to find the necessary funds if the right kind of service can be supplied. In these days of the automobile and good roads a hospital can easily reach out into the country districts, 30 to 50 miles. It is perfectly reasonable to believe that the building of these small hospitals will solve the problem of getting the young physician to settle in rural districts. The young physician learns to value the advantage of hospital facilities and he hesitates to settle in districts where he soon will get out of touch with medical progress. If this were done the city, town and state might be obliged to make some appropriations toward the cost but by leaving the administration in the hands of private individuals the influence of politicians would be negligible.

To meet the needs of the community the hospital would be obliged to supply not only care for in-patients and ambulatory cases but also home service to indigent families, to furnish laboratory, x-ray, physiotherapy and other technical services to all physicians in the area. Health examinations, public health preventive measures, etc., could be advantageously dispensed from the hospital. In short, the hospital could be a real and comprehensive health centre.

It is not to be supposed that all this service should be furnished without increased expense. The hospital could maintain more full time physicians and also might pay a reasonable per diem rate to the visiting physician. It would be a great service to the younger physician whose time hangs heavy on his hands and at the same

time would help him in a financial way as well as afford valuable experience.

It seems to me that this is the best and the most logical solution of the problem of adequate medical service. It would promote home rule and instill local pride. By the combined efforts of the medical societies, city and town administration, local welfare societies and agencies, business men and their associations, churches, etc., such a plan could be made successful. The public should be taught to pay all they can, depending upon their financial status and the balance should come from other sources. Shifting of the whole burden by the family for the care of the sick should not be allowed.

In facing the future the physicians of this country should and must look upon this problem in a broad way. Too often they consider that the increasing hospital service, the work of the health department, and other health agencies are encroaching on their private practice, while actually the health departments are sending to private physicians thousands of patients by their educative work and in New York City the Health Department is enlisting the service of private practitioners by adopting their examinations of food handlers, school children, immunizing against diphtheria, etc. Physicians should demand some remuneration for much of their charity work, but they can't expect to be paid as they are paid by their own patients. If physicians do not accept this burden in a reasonable way and by combined effort suggest a suitable and satisfactory way out of the present situation they may find themselves, in the near future, hirelings of the state.

Dr. Blumer's paper arrived too late for this issue and will appear next week.

Dr. Bigelow was then introduced.

THE RELATION OF CLINICS AND HEALTH ASSOCIATIONS TO THE MEDICAL PROFESSION*

BY GEORGE H. BIGELOW, M.D.†

Mr. Chairman, and members of the New England Medical Council:

THE subject given to me was, I think, the practitioner and the clinic and health associations. I was selected for that subject, apparently, because of my obvious unfitness for it.

This is, as has just been pointed out, a matter of very grave concern to the health administrator. Sometimes the harassed health administrator gets into the state of mind of feeling—to hell with the doctor, and there is probably no more calamitous attitude than that. If through fatigue or lack of vision he develops that attitude, he may think the thing to do is to hire in whoever he can and have the service given, whatever it may be, without respect to the profession, he may by the end of the year be able to show so much done, and yet over a span of years the particular thing is going to lapse. I am perfectly convinced that the things we are interested in having accomplished will be ultimately accomplished only if the general practitioners over the country are interested in the service and are giving it in their own offices.

It is a trite thing to say that this is a time of change. I suppose it has always been a time of change, since things are never stationary, but it does seem in reading about the past that the change is a little more rapid now than it used to be. Of course any change is viewed with alarm, and always has been viewed with alarm by the conservative, and by the obstructionist, and I find it very hard sometimes to make a distinction between the two. The many profound changes which are familiar to all of you are viewed with profound alarm by the medical profession, and I have been quite interested of late in seeing that the medical profession is not alone in viewing change with alarm.

For instance, we are very much interested in milk. The farmers are viewing with considerable volubility and considerable alarm the changes going on in their economic life. They are blaming the health officers for their poor economic condition. They said so yesterday in the annual blatherskitery which we have every year on milk at the State House. It is extremely wholesome, I think, to hear one's work talked about, as we hear ours when the milk legislation comes up each year. It makes for a profound modesty on one's part. But I think they are entirely unjust in blaming the health officers, because if that were true, then this would be true, that the economic security of the milk producer depends upon putting out an unsafe product, and that is not a safe premise on which to build any business. The farmers are feeling the same pressure over grouping into large administrative units that has been felt by the railroads. The chain stores, we are all familiar with. In the small town where I go in the summer it is calamitous to see the established village store being pushed to the wall by the chain store because it can give better and cheaper service. The bank mergers with their tremendous figures stagger us and stagger most professional men who are not familiar with juggling as many digits about which we hear. It seems that it is this same economic pressure that is appalling the unfortunate milk producer and, in his apprehension, his anger, his fear, he

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†Bigelow—Commissioner of Public Health for Massachusetts. For record and address of author see "This Week's Issue," page 969.

is turning much of his resentment on health officers and what they are trying to do.

I was recently interested in attending a hearing at the State House on a matter before the Committee on Legal Affairs. The bill under discussion would limit the banks and trust companies in the writing of wills and administering estates, which were felt to come within the jurisdiction of the private practitioners of the law. It was pointed out that the banks could advertise and the private practitioner could not, ethically, and that for the economic future of the profession there must be a restriction in what they described as the practice of hiring a few incompetent lawyers at starvation wages and exploiting them through the banks and trust companies. It seemed to me astonishingly parallel to some of the discussions that are raised in relation to the proper function and fields of activities of clinics and hospitals in relation to private practice of medicine.

Recently an officer in one of the old established engineering societies in Massachusetts showed me a letter which he had received from a member of his organization in which he deplored the inroads of the governmental hirelings, as he described them. The word "hireling" usually indicates a lack of sympathy. He was disturbed by their coming more and more into the field of private practice of engineering, giving advice to industry in regard to the disposal of wastes with the idea of protecting the health and morals of the commonwealth. He deplored the department of public works giving advice as to the design of bridges—perhaps it was all right on state highways but he did draw the line and thought the public works department ought to keep out of bridges on highways that were not state highways and should not let the cities and towns in the name of economy rush into the State House and have their bridges designed for them, whether a back road, a main road, or what-not. This engineer that I was talking to said he thought it would be unfortunate for the engineering profession to introduce any legislation which would limit this because of the unfortunate misinterpretation that would be given, that the opinion would be that the engineers were interested primarily because of personal economics.

The matter he deplored is the same point which has been raised in regard to the socialism of medicine, that the quality of the service would fall if this thing kept on towering and pyramiding, that many branches of their work would be done by governmental employees who were underpaid, who were in the work because of the hideous official routine, who had no special training. He thought that while this tendency could not be stopped, there might be something his society might do in guiding the development of those tendencies, and his plans are for the society to consider some matters of guidance. Now, it again seems to me that there is a parallel with the problems that we have here.

Of course we are all familiar with some of the dreadful difficulties that you may get into where there is a break between the profession and those who are interested in the public health, or public welfare, or whatever the sectional title applied to it may be. There is the dreadful situation in regard to the Sheppard-Towner bill (the very great difficulty is that there was no very constructive suggestion of something else that might be done, something better); the *Cattaraugus* County situation was a calamitous thing to see; the situation in Chicago between the organized profession and the organization made up of outstanding socially minded private citizens, with whom we are familiar, these all suggest conflict and strivings and misunderstandings, between the various groups involved.

In Massachusetts the Massachusetts Central Health Council, made up of 16 organizations interested in the public health, representatives from the State Medical Society, the nurses, dental society, and so on, is an unofficial organization that has been studying for some years this matter of the clinics and the professional staffs employed, but nothing very profound has come out of it. If there had been a solution, it would be wrong, and as there has not there is some hope that the recommendations made were right.

One of the questions was the matter of selecting the doctor for the particular clinic involved. The difficulty in selecting the physician is evident. There is a certain advantage in getting a physician from outside because then he doesn't have the accusation of personal aggrandizement to meet. Another way is to take the doctors in the community in rotation. That is not good because of varying degrees of interest. Another question is the matter of pay. No profession is more exploited than the medical, there is precedent for it, and anything that there is precedent for is kept up. They should certainly be paid. The question of whether to give treatment and what is treatment is pertinent. The taking out of the tonsils cures tonsillitis and prevents arthritis. Is that prevention or treatment? The roughage diet is a treatment for constipation, but may prevent a lot of ills that come from constipation. It is impossible to draw the line, and yet what type of service can be given? There is the question of economic exclusion; that is the rock on which many a ship has floundered. Then the question of what the nurse can advise in any particular instance as to the patronage of the clinic.

At present the group of the Central Council is considering an outline of what it is proper for the nurse to say in regard to public health education. Can she advise orange juice; can she say anything about foci of infection; can she recommend breast feeding, particularly if the doctor is opposed to breast feeding? The report so far, as I say, has been non-committal.

It seems to me that the great advantage of

this study is that the groups themselves can sympathetically discuss these problems which are the result of the profound change we are going through. At present there is a committee in the Massachusetts Medical Society, appointed by the President, to consider these same matters again with a broad, profound, faithful, sympathetic view. It seems to me that instead of obstructing and avoiding the thing that is sweeping over us like an avalanche, if sympathy and thoughtfulness can be brought in there is a hope of accomplishing something. If there is an emotional urge for anything it will be done. (Milk is getting to be almost as emotional a thing in Massachusetts as liquor.) I am also profoundly impressed with the belief that the public eventually gets what it wants if it wants it long enough; and no officials or organized groups can possibly endlessly prevent the public getting what it wants. Any of your officials in governmental or private organizations who do not gain and maintain the confidence of the public in the fact that they are attempting to give them the sound service which they demand in the most effective way will be swept aside and others will be seen in their places.

Discussion

Dr. Bryant: *Gentlemen*—We have a field as broad as the ocean with a few charted islands scattered along our way, but on the whole a pretty boundless sea. I can see where if we start a discussion of this subject we are going to cover every field and every nook and cranny of the practice of medicine. I don't know how we can really limit this discussion to the subject which we are asked to discuss: "The Relation of Health Associations to the Physician," but I wish we would as far as possible confine ourselves to the subject of the day.

I am calling on Dr. Greenough, President of the Massachusetts Medical Society, to open the discussion.

Dr. Greenough: *Mr. Chairman and Gentlemen of the Council*—I feel that it is rather a hopeless problem if we look at it with the idea that we are going to solve it by appointing committees. But it is illuminating to know as Dr. Bigelow has pointed out the same difficulties we are experiencing in medicine are being felt in other professional lines, such as engineering and the law. I suppose we may first start with the justifiable hypothesis that this country is not adapted to State medicine or to a communistic attitude toward the profession of medicine. That, I am quite convinced, is true. On the other hand, the developments which have taken place in the last ten or fifteen years, not only in medicine but in other professions, have brought about conditions which very profoundly affect our attitude toward all these questions. As the public becomes better informed about medical matters of course it becomes dissatisfied with anything but the best, and indeed, the people are entitled to the best. Under present conditions, however, they do not always succeed in getting the best, and therefore I think that sooner or later they will force many of these things upon us whether we wish it or not. That is, sooner or later the time will come when the man who is sick will have the right to expect to be able to be given treatment for his disease which is as good as is known by the medical profession.

In this particular matter of the development of health associations and clinics and special services, I think we can make progress by attempting to divide the problem a little bit. For instance, the whole business of industrial medicine lies a little apart from this question of the health associations and special clinics, and I think we may leave that for the moment, to be dealt with as a problem of its own. If we do leave out the problem of industrial medicine, we can divide what remains, it seems to me, into two groups of activities: one is the group of clinics which may be said to be of a consultative nature. Such clinics require, of course, special knowledge, and as such they are organized only in the larger institutions and larger centers. The clinics that are maintained now on tuberculosis, diabetes, and heart disease, such special services as orthopedic surgery, or cancer clinics, come under this category. In these consultative clinics certain general principles can be laid down which can, or should in the future, make them not a matter of concern or opposition on the part of the general practitioner, but rather make them available to him as an additional resource. The other special services are perhaps more technical in their nature and involve either equipment or apparatus, such as x-ray or laboratory service, which may be made available for the whole community, the general practitioners and the hospitals as well. Those technical services, I think, could be dealt with in quite a different way from the special consultative clinics. If we do attempt to make that division we can perhaps simplify this problem and can deal with one thing at a time.

For instance, the matter of general health examinations or periodic health examinations. Most of the announcements in regard to periodic health examinations advise the individual to go to his family physician for such examinations, and the family physician attempts to give that examination, but he is limited not only in regard to his general abilities and knowledge, but especially in regard to technical resources for completing the examination. We cannot expect every physician to have an x-ray apparatus, and we cannot expect every physician to have readily available to him all of the possible necessary laboratory resources needed for a complete and satisfactory examination. Behind all that lies, also, the fact that the general medical pro-

fession has not taken a very active interest in periodic health examinations, and therefore to supply the want, which is a definite one on the part of the public, recourse has been had to these extra-professional groups which undertake, like the Life Extension Institute, to supply such service. Therefore, I believe that a very definite step in advance could be made by giving to the general practitioner who is interested and willing to make such examinations, facilities by which he can obtain all of the necessary technical laboratory data for his consideration, just as those data are obtained when he goes to a general hospital. I do not see why supplying the resources of a modern laboratory for the assistance of the general practitioner is not a perfectly legitimate thing for us at the present time to undertake.

In this connection, the attitude of organized medicine becomes of very serious significance. I believe, a very definite effort must be made by the medical societies and the State medical societies in particular, to collect the information in regard to these matters which is now available and put it before the members of the profession. I think we are faced with the necessity of doing this, because if we do not within our own organizations take some steps to meet this definite public demand, that demand is going to be put through over our heads. I think the troubles that came up in Cattaraugus County, New York, and in Chicago, are very definitely due to the fact that the attempt was made there to put these plans for clinic service into effect in opposition to the local medical profession. The medical profession that does not recognize these needs of the public is going to have things like this forced upon it, even against its will.

On the other hand, I am quite clear that such difficulties are not a necessary feature of such service at all, and the fact that we have been able to put our cancer clinics on in Massachusetts without meeting that difficulty is because we have done it not against, but with the coöperation of the medical profession. There is not one clinic of the sixteen here in Massachusetts which has not been fathered by the local medical profession. The steps that were taken in organizing these clinics were to go into a community like Lowell or Lawrence, and ask the medical society to meet with us. We then said to them virtually this: We think that Lawrence is a big enough city to have a special cancer clinic, and we are prepared to help you to get such a clinic if you feel that you should have it. If you do feel that way we will ask you to appoint a committee of your local society to deal with this matter. We have then continued negotiations with that committee. The selection of the place, the method of conducting the clinic and even the professional personnel of that clinic has been accomplished by the committee with such help as we could give them, and on that basis this chain of cancer clinics has been organized, and I have yet to hear any complaint whatever from the general practitioners in those different districts in regard to the functioning of these clinics. The point is, of course, that it has not been crammed down the throats of the medical profession but has been done with their coöperation.

I believe that all of the consultative clinics, for instance those on diabetes, heart and other special subjects, can be handled in the same way. I believe that it is quite unreasonable to expect the general practitioner in this day and generation to make himself an expert on all forms of disease. The day that that could be done has long since passed. On the other hand, if consultation service is to be obtained only by traveling a long distance and paying large fees, such service will not be utilized, and therefore it is necessary to supply this service in some form in scattered stations and at minimum expense—a service which the medical profession has always been perfectly willing to supply in any community.

My own feeling is that the crux of the whole thing, as far as consultative clinics are concerned, is that they can be organized with the coöperation of the medical profession and as a distinct addition to the resources of the general practitioner. If this is done, the general practitioner will be the first one to support these clinics because of the manner in which it enables him to give better service to his patients.

I think the technical laboratory end of it can be very readily provided by the various existing health authorities in the state and cities. I believe that sort of service, including all the laboratory methods necessary in case of general health examinations should be made available, as so many of the laboratory services are now available under the auspices of the Department of Public Health.

DR. BRYANT: I think the idea Dr. Greenough has given us is good, that instead of attacking this as one big problem it should be separated into divisions; and in that way we can bring out in our discussion along certain lines helpful things that have been of use and of service in the various States.

The purpose of the organization of this Council is to discuss all these things which are of interest to the New England States and then if one State has made a solution of any part of these problems they should give the rest of us the benefit of that information.

DR. BLUMER: So far as Connecticut is concerned there is only one educational institution in the medical field, namely the Yale Medical School. The Yale Medical School does not possess a post-graduate department in the ordinary sense of the word but it does offer opportunity for post-graduate education along certain lines in connection with the work of the

New Haven Hospital. The catalogue of Yale University states the matter as follows:

"Students who have completed their medical courses and who hold the degree of Doctor of Medicine and who wish to pursue further study in the *medical and biological sciences* may register in the Graduate School in one of the following departments: Clinical Medicine, offering courses in Medicine, Surgery, Pediatrics, Obstetrics and Gynecology; Bacteriology, Pathology, and Public Health; Pharmacology and Toxicology; or Physiology and Physiological Chemistry.

"Persons not holding the M.D. degree are not taken in the practical branches of Clinical Medicine, but they may attend certain conferences and clinics, if by their previous experience they are prepared to profit by the instruction offered. Special courses may also be arranged in Anatomy, Physiology, Pathology, Bacteriology, Pharmacology, Public Health, and in the special laboratory methods of medical and surgical diagnosis. The charges for instruction will depend on the courses taken and can be ascertained for any particular line of study by applying to the Registrar."

It can be seen therefore that properly prepared individuals can obtain instruction involving several years' work, which while it will not give them a special degree which carries any significance from the medical viewpoint to the layman, will undoubtedly prepare them to practice satisfactorily as specialists.

After the reading of the papers on the regular program the Council adjourned for luncheon at one o'clock.

During the luncheon Dr. Frank R. Ober, Assistant Dean in charge of the Graduate Course of the Harvard Medical School, at the request of Dr. R. B. Greenough addressed the company giving an account of post-graduate teaching in the Harvard Medical School.

THE RELATION OF CLINICS AND HEALTH ASSOCIATIONS TO THE MEDICAL PROFESSION*

BY FRANK R. OBER, M.D.†

Mr. President and Gentlemen:

IT is a pleasure to appear before this body of men who are so interested in medical progress in New England.

The course for graduates at the Harvard Medical School is endeavoring to do two things —furnish short courses whereby general practitioners may have opportunities to improve themselves in diagnosis, and longer courses, some of which have been arranged and others are being arranged, so that specialists can be made. We do not think that one can become a specialist in any of the departments of medicine by simply coming to hospital clinics for six weeks and standing around the corridors and examining an occasional case. In order to become a real specialist it is necessary to have had either medical or surgical training first and then an adequate training in hospital work along the line which one expects to use.

The Department of Orthopedics has organized a two-year course, eight months of which are given at the Massachusetts General Hospital, eight months at the Children's Hospital, and the third eight months are spent in some of the chronic hospitals and in the laboratories at the Medical School. Along with these courses the men are given clinical instruction by the members of the Visiting Staff, and they are allowed to do operations assisted by the members of the Staff on service in the wards of the hospitals. These men have the care of the patients in the wards under the direction of the visiting surgeons and are held responsible for their care.

A similar course has been organized in Diseases of the Eye by Professor Derby at the Eye and Ear Infirmary, and recently a course has been organized at the Boston Lying-In Hospital in which a man can come and spend a whole month living at the hospital, being on call night and day for all sorts of obstetrical problems. Two men may be taken on at one time.

It has not been thought advisable to give degrees in medicine nor to give certificates for having done work, because there has been a feeling that such degrees and certificates are used for advertising purposes only, and personally, I do not consider it an ethical procedure.

We have recently organized some extension courses which are carried on in different cities in the state, the doctors clubbing together and each one paying a small fee, and having the Medical School send men who are interested in a special line of work so that they may have a clinic once a week. Such courses have been run in Worcester and Pittsfield, and one is now under way in Springfield.

In the near future we hope to send one or two men out to the small town hospitals with the idea that they can hold an all day or an all week clinic at the hospital in conjunction with the county medical society and the visiting staff of the hospital. We hope in this way to carry graduate teaching to more practitioners. It seems to me that many practitioners do not avail themselves of the teaching which can be had in their neighborhood because it is so difficult to get away from busy practices, but they would be inclined to go to their community hospital center for special teaching. I think that this would improve the meetings of the county medical societies and would furnish a high type of medicine to the general practitioner.

*Read before the New England Medical Council on February 19, 1930.

†Ober—Assistant Professor, Orthopedic Surgery, Harvard Medical School. For record and address of author see "This Week's Issue", page 963.

Following Dr. Ober's address the Council returned to the Assembly Room and was called to order by President Bryant who introduced Dr. Robert B. Greenough. Dr. Greenough opened the discussion of the papers previously read.

Discussion

Dr. R. B. Greenough: At the Meeting in Bellows Falls, Dr. Blumer and I were asked to serve as a Committee to interview the Deans of the Medical Schools in Boston and New Haven. We were also asked to urge the development of courses for graduates in the different specialities of sufficient quality and duration to qualify those completing the courses to practice those specialties; and furthermore to consider the possibility of offering to such specialists, some collegiate degree or other evidence that they were in fact so qualified to practice their specialty.

With the assistance of Dr. Frank Ober, Assistant Dean-in-Charge of Graduate Courses in the Medical School of Harvard University, I have determined that there are now offered at Harvard, Courses in Neurology, Ophthalmology, Pediatrics, and Orthopedic Surgery, all of which include practical hospital interne service in these branches. These courses are from six months' to two years' duration. Admission is limited to men who, by previous hospital and school training, are qualified. It is to be supposed that students who have successfully completed these courses will be actually qualified to enter private practice and hospital work as specialists in these particular lines. The course in Orthopedic Surgery, of twenty-four months, is the most completely organized of these courses.

Similar courses in Genito-Urinary Surgery, Gynecology, Dermatology, Obstetrics, and Laryngology, are also planned, but have not as yet been organized on so comprehensive a scale.

Dr. Ober tells me that the Post-graduate School of the University of Pennsylvania has reorganized its graduate courses somewhat along these lines, and that the New York Post-graduate School is in the process of doing the same thing.

At Dr. Luce's suggestion, I obtained a circular from the University of Minnesota. With the aid of the Mayo Foundation, they offer a large variety of courses in the specialties, looking to a Master's degree (M.S.) or a (Ph.D.) after three years of work.

It is a question whether a higher collegiate degree is at the present time of much service as a method of identification of the competency of a specialist. The public has not been trained to pay much attention to these matters, and it would require a long campaign of publicity to educate them in this respect. The attempt on the part of the American College of Surgeons, however, to establish a Fellowship in the College, as a standard of qualification, for the practise of surgery and surgical specialties, has already reached a point where this qualification is recognized by the public all over the country, and especially in the West, where it may be said to be firmly established. I believe, therefore, that it is wiser to coöperate with the College of Surgeons in establishing these standards than to attempt by some other means to set up a different standard. The College of Surgeons recognizes the specialties, such as Genito-Urinary, Orthopedics, Gynecology, Nose and Throat, Ophthalmology, as well as Traumatic Surgery. So far as Ophthalmology and Nose and Throat are concerned, the College of Surgeons accepts the standards of the American Board of Ophthalmic examiners, and of the American Board of Oto-Laryngology.

I sincerely hope that it may be the decision of the New England Medical Council to accept these standards and to coöperate with the College of Surgeons in maintaining them.

As one of the Regents of the College I shall be glad to submit to the Board any recommendation from this Council. I am sure your recommendation will have careful consideration.

Dr. Bryant: In our papers and discussions so many problems have been brought out that are of interest to the medical profession that in order to solve any it will be necessary to consider them separately.

As regards the relation of the physician to lay health organizations, I think in Maine we have a very satisfactory arrangement which seems to be functioning well.

Several years ago, there were a number of independent lay organizations in the state doing health work. An attempt was made to coördinate these groups in the formation of the Maine Public Health Association, a reorganization of the former Anti-Tuberculosis Association, with central offices at Augusta.

The general supervision is vested in an executive committee of twelve, made up of officers and others elected by the Board of Directors. At the present time there are six physicians on the committee, which meets at the office in Augusta once a month. On the service staff we have a:

Supervising Nurse
Supervisor of Child Health Education
Financial Secretary
Office Secretary and Staff
Clinic Nurse
Fourteen Field Nurses

The chief function of this Association is the education of the public in matters of health. For this purpose the work is organized under the following sections known as that of:

Public Health Nursing
Health Education
Cancer Prevention
Heart Disease Prevention
Dental Hygiene
Mental Hygiene

Social Hygiene
Vision and Hearing Conservation
Section of Crippled Children

Each one of these sections is under the charge of a chairman, assisted by a small committee. Seven of these committees are made up of physicians, experts in their lines of work. These committees assist in the development of the work in their particular sections. All programs of work in the beginning were reviewed and approved by the Committee of Public Relations of the Maine Medical Association, then in turn by the County Medical Societies where health programs were to be carried out. It is believed that the successful development of any branch of the program depends chiefly upon the coöperation and approval of the medical profession.

The method of working is perhaps best illustrated by the management of chest clinics. Forms are sent early in the year to the officers of the county medical societies for their signatures. They are asked to indicate how many clinics they wish during the year, and a tentative date for a joint meeting of the medical society where the demonstration is desired. A full-time clinic nurse then goes to the city or town indicated and helps organize the clinic. A place of meeting is selected. As many local physicians as possible are visited and are asked to send patients to the clinic. If the society has no choice of medical experts, usually members from the Committee on Tuberculosis and Heart Section are willing to serve, or will suggest experts to do the work.

No patient is admitted to the clinic except through the family physician, who is always requested to be present at the examination. Patients are given appointments and careful histories in triplicate are written beforehand for the clinician, the family physician, and the field nurse. The clinic nurse is also an x-ray technician and carries with her a portable x-ray apparatus and is able to take all films desired. These clinics usually begin in the morning and carry on through the day. In so far as is possible, all examinations and tests are completed, x-ray films developed, and a joint meeting held with the county society in the evening, where the films are shown and the cases discussed. The clinicians have charge of the general program for the evening. Complete copies of all histories and findings of examinations when completed, are kept on file at the home office and copies are sent to the family physician, and instructions to the local nurse to follow up when approved by him.

Similar clinics under other sections are carried on when requested by the county societies Developed in this manner, there is complete coöperation between the medical profession and the Maine Public Health Association, and rarely is there any temporary friction which cannot be immediately cared for by consultation with all parties concerned. About sixty-five clinics have been planned for this year. Permanent and follow-up clinics are very much desired.

The work is financed by the sale of seals, by private subscription, and by town appropriations. It is the policy of the Association that health work shall be paid for by the locality in which the service is given. When a permanent nursing service is asked for, each town is requested to raise its proportionate share of money for its support; in addition, eighty per cent. of the money from the sale of seals is retained by that locality for this work. Where scattered towns raise money and there is no organized service, a float nurse goes from place to place and gives service to the amount of money appropriated. Most of the permanent services at the present time are self-supporting.

The budget for this year calls for seventy-two thousand dollars ($72,000), a small advance over what was spent last year.

Dr. H. O. Smith: I am informed that the President of the New Hampshire Medical Society is supposed to acquaint the members of the profession in his state with the proceedings of the New England Medical Council and I am asked how I propose to perform this duty.

I believe this can best be done at the meetings of the county societies. At several such meetings I have given a résumé of the papers and discussions read at Bellows Falls last fall and I expect to give a report of our doings here at the approaching meeting of the Cheshire county society.

I am of the opinion, however, that these reports should be given, not by the president of the state society, who is a member of the Council for only a year and whose visits to the county societies often antedate the meetings of the Council, but by the secretary or senior delegate, who, by reason of his longer connection with the Council, should be able to give a better account of its activities and proceedings.

Dr. William Ellingwood: Inasmuch as there are five members of the New England Medical Council from each state and they represent the State Medical Societies would it not be possible to divide the states into five districts each and appoint one member of the Council to visit each County Medical Society in the District. In this way the members of the County Societies will have an opportunity to discuss the proceedings of the council meeting and at the same time give the Council Representative their opinions on subjects to be discussed at a future meeting.

During the afternoon the direct and associated problems of medical education and practice in their relation to various phases of public health activities were freely discussed. From the discussion by Dr. Bryant which appears above, it

will be seen that he gave a detailed account of the development of public health activities in Maine which are now closely associated with the Maine Medical Association in the management of the details of the various departments.

The present conditions are satisfactory to the medical profession because all activities are first approved by the officers of the state or county associations.

Because of this working agreement appropriations are obtained without conflicting activities.

Almost every one present participated in the discussions and it was evident that there is an appreciation of the changes taking place in the relations of the medical profession to the people which call for careful considerations and guidance of public opinion.

In order to meet the need of rural communities for doctors, Dr. John M. Birnie read a paper which set forth an ingenious and well thought out plan for the education of physicians who may fill positions in certain territories.

A SPRINGFIELD MEDICAL SCHOOL?*

BY JOHN M. BIRNIE, M.D.†

TWENTY-FIVE years ago there were 162 medical schools in the United States, while today there are less than half of that number. We have fewer but vastly better schools. This reduction in numbers was brought about by consolidation and readjustment. The changed condition was purely voluntary and was more or less a direct result of investigation and classification. The statistics, thus obtained, were given wide publicity and the strong force of public opinion was brought into play. More than one school was lost to New England. These schools went out of existence, not primarily because of lack of funds or teaching personnel, but because they lacked material for clinical instruction. They were unfortunately situated from the point of view of medical teaching. A successful medical school must, of necessity, be located in close proximity to a large diversified hospital population. This statement needs no proof, as it is self-evident to the medical mind. Many universities, recognizing their handicap, due to rural or semi-rural location, maintain their medical schools in cities some distance from the main institution. Theoretically, at least, any good-sized city with adequate hospital facilities is potentially a medical teaching center. Two factors are essential; size of population and hospitals of sufficient bed capacity and varied interests. Boston is a large city with many hospitals but Tufts Medical School has been forced to seek a million and a half of dollars to erect a medical center, in order to provide satisfactory clinical facilities. Yale Medical School is spending large sums to provide hospitals which will adequately serve her teaching requirements. Boston University is enlarging her hospital connections. Harvard alone, of the New England Medical Schools, seems to be satisfied with her hospital affiliations. Questions frequently asked are, have we enough medical schools and are they adequately fulfilling the requirements of medical education. I cannot definitely answer these questions, as high authorities are not, as yet, in accord. I think most educators agree that we have not enough medical schools or else their size is not great enough to accommodate all those who seek admission. Every one of the medical schools in New England limits the size of its entering class and could have many more students if it so desired. Tufts not only limits the size of its entering classes but further states that it will only accept residents of New England. Its applicants exceed the quota many times over and it would seem that New England is lacking in facilities for medically educating her own sons. There are five and one-half Grade A Medical Schools in New England. The one-half refers to Dartmouth, which offers only the first two years of a four year medical course. She further limits these two classes to 20 men each. These men, after satisfactorily completing a two years' course, have no difficulty in entering, with advanced standing, the best medical schools. Dartmouth has enough applications for her medical courses to fill them many times over. She gave up her last two years of medical school because of her inability to provide a sufficiently large amount of clinical instruction of a high grade. Such teaching as had been done was carried on in Boston, already overcrowded by the three local schools. She controlled no hospital other than the Mary Hitchcock in Hanover.

Previously, I have stated that any good-sized city with adequate hospital facilities is potentially a medical teaching center. Springfield is a good-sized city. How does she qualify as to adequate hospital facilities? She is, or rather soon will be, well-supplied with hospitals covering all branches of medicine. The Wesson Memorial Hospital, a general hospital, has very small public ward services and at present could be used for medical teaching purposes only to a very limited extent. It uses two internes and would be very glad to offer full or partial interne services. The Trustees of the Wesson are very anxious to enlarge their institution and will probably undertake some sort of an expansion programme within the next few years.

The Mercy Hospital, also a General hospital, has just completed a building and remodelling plan which gives it a highly modern plant with over 350 beds, including maternity and public

*Read before the New England Medical Council on February 19, 1930.

†Birnie—Visiting Surgeon, Springfield Hospital. For record and address of author see "This Week's Issue", page 969.

wards. Its facilities for teaching are excellent.

The Springfield Hospital, also General, within two years will have completed its new buildings, offering over 350 beds, a large part of which will be in wards. This new hospital will not be surpassed anywhere. It will have an isolation hospital of 20 odd beds. It will have a large out-patient department, complete in every detail and equipped to handle every specialty. It will have one complete department found in few if any New England Hospitals and that is, the Bronchoscopic Department. Even with cramped quarters and inadequate facilities, the out-patient department last year treated over 3,500 individual cases. With these three General Hospitals, Springfield will have about 800 hospital beds, with a sufficient proportion of them given over to ward cases.

The Shriners' Hospital for Crippled Children in Springfield assures adequate orthopedic material. There are in addition, orthopedic clinics at the Mercy, Springfield and Wesson Hospitals.

Unless present plans go very far astray, we will soon have a municipal hospital group, providing 100 beds for contagious cases, 100 beds for the tuberculous and possibly 100 beds for patients with so-called chronic diseases. The plans for the contagious unit have already been drawn and provide for a plant unsurpassed anywhere in the East. In fact, the only recently built contagious hospital is in Chicago.

The weakest link in our chain of hospitals is the obstetric. We have practically no ward beds for maternity cases. There is real reason to assume that this deficiency will soon be met. Further, the Wesson Maternity Hospital is already planning an out-patient obstetrical department so that obstetrical teaching may not be entirely wanting.

The Hospitals already existing in Springfield are all approved by the American College of Surgeons.

Aside from the purely local hospitals, Springfield has several special hospitals located within a few miles of her, hospitals highly desirable for medical teaching. To enumerate: The Monson State Hospital for epileptics—The Northampton State Hospital, The Veterans Hospital at Leeds and The State Hospital for juvenile tuberculosis at Westfield.

The various hospitals which I have described, already are or will be available within two years. In addition, there are other institutions in the not impossible future. First, the new Wesson Maternity Hospital, which is bound to come. The only thing uncertain about it is the date of its arrival.

Within the past six months, two doctors have told me that they have wealthy patients who are considering endowing new hospitals in Springfield. Both of these prospective donors have in mind hospitals given over to the treatment of chronic diseases.

According to all known standards, Springfield has the facilities to provide high grade clinical medical instruction and having her talents, they should be used. She has not the facilities to provide the type of medical instruction usually offered in the first two years of a medical course. In other words, she could not offer the first two years of medical training but she could offer the last two. What, then, is the logical thing to do? Why, of course, find some institution which can or does provide only the first two years of medical instruction and combine with it. Such an institution exists at Hanover, N. H. Dartmouth College and Springfield could combine to offer a full four years' course in medicine, which would fulfill all the requirements of a Class A Medical School. Hanover is near enough to Springfield so that a combination medical school could be administered without undue difficulty. The school proper would need a building for administration purposes, lectures, etc.

Springfield would gain immensely because of this medical school, because hospitals and their entire personnel always improve their work and maintain it at a higher level when connected with a teaching institution.

While this whole subject is entirely a dream, its realization lies within the realm of possibility.

After an informal discussion following Dr. Birnie's paper it was

Voted, that the chair appoint committees to consider the various phases of the problems discussed and that reports be submitted at the meeting of the Council to be held in Plymouth.

The meeting then adjourned.

MEDICAL HISTORY

ALFRED NOBEL: MEDICAL INCIDENTS AND NITROGLYCERIN*

BY WILLIAM PEARCE COUES, M.D.†

"MAN is but a brittle reed, but he is a thinking reed. The universe does not need all its strength to break him, a gust of wind or a shower may suffice. But even though the universe destroy the reed, the reed is more than the universe that kills. For it knows that it dies whereas the universe is unaware of its victory." *Pascal.*

"Take one of the little white tablets, and let it dissolve under your tongue, as soon as you feel the pain come under your breast bone; take another in a few minutes, if unrelieved, it will probably stop the pain very quickly."

How often has the practitioner used these, or similar words to his patients with angina, without thought of Ascanio Sobrero, the young Italian chemist who at Turin, in 1846 discovered nitroglycerin. Nitroglycerin was used medicinally for fifteen years before Nobel's researches showed its tremendous and devastating possibilities as an explosive in peace and war.

To most of us the name of Alfred Nobel signifies little beyond the fact of his peace awards. Apart from this there are many incidents in his life of interest to physicians. The character of the man, his fund of dry and sometimes bitter humor, his caustic comments on the world's praise to the great, or seeming great, and his kindliness and the great good done to deserving people, quietly and unostentatiously, long before he achieved greatness, make a perusal of his biography a fascinating study.

One of the most interesting accounts of his life is that of Sohlman and Schuck, translated by Brian and Beatrix Lunn, published in 1929. (New York, Cosmopolitan Book Corporation.)

Though Nobel was of Swedish ancestry and was born in Sweden he was a cosmopolitan of the cosmopolitans, France, Italy, Russia, England, and Germany being at times his home, as his explosive works, and the experiments therein, called him hither and yon. He had the most facile command of the languages of the countries above mentioned, in writing and in speaking, and this was of immense service to him in his work.

It is not generally known, his above mentioned biographers point out, that Nobel was in his youth a poet, who promised something more than mediocrity.

He was born in Stockholm on October 23, 1833, and died at his villa in Italy on December 10, 1896. The more one reads of his life the more one is impressed with his intense dislike of publicity, and his prejudice against the acceptance of the honors which the world has ever been eager to bestow on those who have achieved greatness. We find repeated instances of these traits in his letters, suggestive of an inferiority complex.

His brother Ludwig, we are told wrote to Alfred for some light on the family records in the past, and for a biography. To this request Alfred replied as follows: " . . . In the circumstances it is impossible to write a biography, unless it is a simple record of facts, and such, in my opinion are the most eloquent. For instance, Alfred Nobel: his miserable existence should have been terminated at birth by a humane doctor, as he drew his first howling breath. Principal virtues: keeping his nails clean, and never being a burden to any one. Principal faults: that he has no family, is bad tempered and has a poor digestion. One and only wish: not to be buried alive. Greatest sin: that he does not worship mammon. . . ."

In 1889 he wrote, "As you well express it, I have great things to think about, at least one great thing,—the passing from light to darkness, from life to the eternal unknown, or as Spencer calls it, the unknowable. You remember the thoughtful line of an English poet (Campbell) 'Coming events cast their shadows before'. It is especially the case with that event which puts a full stop to further events."

Nobel refers to his long standing angina, which after he reached the age of sixty years, became increasingly severe. In 1894, we are told that he wrote to Liedbeck: "I am almost in a worse way than before, as I have had these rheumatic devils paying a visit to the heart muscles or thereabouts for some days and people feel that at any moment eternity may be welcoming me with open arms". Again he writes in 1896, "Since you left my heart. . . has been afflicted with earthly demons too. Two idiots of specialists attribute the trouble one to rheumatic gout, and the other to gouty rheumatism, a kind of jargon which is no explanation of the fact that my heart pounds like a horse, though there is devilish little of the horse in me."

Two months before his death he wrote: "As you know, I have come here to Paris to consult a famous specialist for disease of the heart, and

*Read before the Boston Medical History Club, March 17, 1930.

†Coues—Surgeon to Outpatients, Massachusetts General Hospital. For record and address of author see "This Week's Issue", page 969.

both he and my own doctor state that it is impossible for me to continue for long to work as hard as I have been doing hitherto, with such an advanced calcination of the aorta. This does not mean that I must be idle, but only that I must as far as possible avoid strenuous travelling."

He wrote to his assistant Sohlman, soon after this "My heart trouble will keep me here in Paris for some days certainly, until the consultants are quite clear as to the best method of treatment. It seems an irony of fate that they should be prescribing nitroglycerin internally for me." "They call it trinktin to avoid terrifying the chemists and the public."

Of anniversaries and memorials Nobel was always critical as will be seen below. "My natural inclination," he wrote, "is less to honor the dead who feel nothing, and who must be indifferent to marble monuments, than to help the living who are in want." There was a proposed memorial to Pasteur at this time, and Nobel was approached. He wrote: "That Pasteur himself would like to send all such manifestations to the devil, and that he loathes any advertising of his name, because it tires him out to deal with the callers that result. "Like all notable persons living here, he rarely has peace from that worst of all plagues, newspaper reporters."

"Bugs are a positive delight, compared to them, and it would be a real blessing if an exterminating powder could be invented to deal with this two legged pest. I believe that Pasteur suffers much from the attention of reporters, and has been so much exhausted by them, that he would gladly dispense with academic honors." "A fund bearing his name would certainly be more to his liking than a medal. He has all the knickknacks and orders to wear on his chest, his belly, or his back."

"I have received no orders at all for my scientific work, my orders have no explosive basis."

"I owe my Swedish order of the North Star to my cook, whose skill won the approval of an eminent stomach."

In regard to a memorial tablet to his mother, who had recently died he wrote, "Let us have three bas-reliefs we must certainly have one of Emil and let us reserve one for the next comer—I refer to my old wormeaten self. I suggest this only for the sake of symmetry, for folk such as I are happiest without any portrait, both in the world of light and in the world of shadows. It really seems almost pitiable to wish to be something or somebody in this motley collection of fourteen hundred million two legged tailless apes, which walk about this earth projectile as it speeds through space."

The other side of his character is shown by the touching letters of a poor Swedish girl, who, we are told "Had a very bad time in Paris. She had a chemist's shop and did not write to Nobel to help her financially," she says "She is managing quite well". "She writes to him as an old uncle, about all her interests, and her views of life. Other Swedes had been harsh and unfriendly to her but not Nobel." She writes, "If you come this way to the rue de Rivoli, Mr. Nobel, do say good morning to me. It would give me such pleasure to see you once again." Nobel made the visit, and she writes: "I thought that I should never see you again Mr. Nobel, and was so glad when I saw that it was really you, that I could not think or speak properly. If I could only be of use to you in some way, it would give me much happiness. I must have a very small heart, for there is no one on earth for whom I really care for except Mamma, little Marc, and you, Mr. Nobel."

"Results of a cut finger." Sohlman and Shuck thus head the chapter on Nobel's discovery of the newer explosives of increased devastating power, which occupied so much of his time for many years. They tell us that "Nobel accordingly continued to work at the discovery of an explosive which would combine the high power of nitroglycerin with the comparative safety in handling of dynamite". "His efforts were crowned with success, when in 1875 he discovered blasting gelatin, a colloidal solution of nitrocellulose, having a certain affinity with nitroglycerin." The absorbing capacity of ordinary gun cotton (nitrocellulose), proved inadequate for nitroglycerin, and he failed to produce a solution of suitable consistency of such gun cotton in nitroglycerin.

When he was making these experiments in the laboratory, he cut his finger, and applied collodion to the little wound. It would seem from the story that infection might have developed in the cut, at all events, the pain in his finger kept Nobel awake at night, and he lay unable to rest, his active mind engaged in the problem of gun cotton and nitroglycerin. He thought that he might effect the combination desired by a mixture of less strongly nitrated cellulose than with the ordinary (collodion) and nitroglycerin. At four A. M. we find him in his laboratory, and on his assistant arriving in the morning later, he was able to show him the first specimen of blasting gelatin, "which had been produced in a flat, glass vessel. . . ". We are told that the use of blasting gelatin instead of the ordinary dynamite was productive of an enormous saving in labor and in the construction of the St. Gothard Tunnel.

In later life, we are told, Nobel assayed to go back to his poetry, but it was too late; the mind had been consecrated for years on other subjects. He had admired, and written in the style of Shelley in his youth, and in closing these brief comments on some incidents in the life of this remarkable man, a quotation from his first poem, written when he was eighteen years of age, shows remarkable possibilities for the brilliant minded youth, had he chosen to keep to the lyric path in-

stead of turning to science. The poem had no title; it was written in 1851.

"You say I am a riddle—it may be,
For all of us are riddles, unexplained.
Begun in pain, in deeper torture ended.
This breathing clay, what business has it here?
My cradle looked a death bed, and for years
A mother watched with ever anxious care,
Though little to save the flickering light,
I scarce could muster strength to drain the breast,
And then convulsions followed till I gasped
Upon the brink of nothingness—my frame
A school for agony, with death for goal.
Thus passed some years, while life, with death contending
Hung over chaos, on a single thread,
But spun by destiny, such threads will hold,
Till man is brought to tear them with a curse.
Not that to me life seemed an idle burden:
I look upon it as a noble gift,
A gem from nature's hand for man to polish
Till sparkling beams repay him for his toil."

From this fragment of his earliest poem, which describes his own infancy and childhood, the modern pediatrist would probably make a diagnosis of infantile atrophy, and chronic gastro-enteritis. Is it not possible that Nobel's severe infantile illnesses and his unhappy childhood left a lasting effect, which later gave rise to the unfortunate pessimism and bitterness which is so noticeable in much of his correspondence with his family and intimates?

ANNOUNCEMENT BY GOVERNOR FRANKLIN D. ROOSEVELT OF THE APPOINTMENT OF A SPECIAL PUBLIC HEALTH COMMISSION

Governor Roosevelt has announced the appointment of a Special Health Commission to study and report to him upon the working of the public health law and the various state and local authorities dealing with the promotion of health. He indicated that while New York has one of the best public health laws of any of the states, and has a state health department which has wide recognition as a leader in its field, the great discoveries in medical science make it desirable every few years to have an appraisal to determine the possibility of a more effective application in actual practice of the latest results of scientific research in the means of preventing disease and conserving health.

The following named persons have been asked to serve on this commission:

Dr. Livingston Farrand, Chairman, President, Cornell University, Ithaca, N. Y.

Dr. George W. Cottis, Jamestown, N. Y.

Dr. Simon Flexner, Director Rockefeller Institute for Medical Research, Chairman State Public Health Council, New York City.

Hon. Homer Folks, Secretary, State Charities Aid Association, Vice Chairman, State Public Health Council, Yonkers, and New York City.

Dr. Edward K. Keyes, President American Social Hygiene Association, Professor of Urology, Cornell Medical School, 50 East 42nd Street, New York City.

Mr. John A. Kingsbury, Secretary, Milbank Memorial Fund, 49 Wall Street, New York City.

Mrs. Henry Goddard Leach, President, League of Women Voters, New York City.

Hon. Henry Morgenthau, 461 Fourth Avenue, New York City.

Dr. Matthias Nicoll, Jr., County Health Commissioner of Westchester County, Former State Commissioner of Health, White Plains, N. Y.

Mr. John M. O'Hanlon, Secretary, New York State Federation of Labor, Troy, N. Y.

Dr. Thomas Parran, Jr., State Commissioner of Health, Albany, N. Y.

Dr. William H. Ross, President, Medical Society of the State of New York, President, Suffolk County Board of Health, Brentwood, L. I.

Hon. Gerard Swope, President, General Electric Company, Schenectady, and New York City.

Miss Katherine Tucker, Director National Organization for Public Health Nursing, 370 Seventh Avenue, New York City.

Dr. Linsly R. Williams, Director, New York Academy of Medicine, Former Deputy State Commissioner of Health, New York City.

PHYSICIANS DRAW COLOR LINE IN SOAPS

White soaps over colored soaps have won in a battle raging among physicians, health authorities and nurses all over the country. Dr. F. M. Goodchild, of New York, started the controversy when he undertook to determine whether there was any real medical conviction as to the relative merits of white and colored soaps.

Nurses, as well as physicians, were found to have very decided views on the soap question. Among the replies thus far received the weight of authority is overwhelmingly that white soap is less likely to contain foreign matter. Questioned directly on this, 199 physicians and nurses replied that they had noticed foreign matter in colored soap, while they had found white soap generally free of it. Only six reported that they found no harmful ingredients in colored soap.

One hundred and sixty-three medical authorities throughout the country, asked as to their opinion on the relative safety from the standpoint of the public of the two classes of soap, registered themselves in favor of white soap, and only seven for colored.

Most of the health officers and physicians who expressed themselves believed that colored soap predominated in producing harmful effects. Some of these effects result in dehydration, dermatitis or other skin trouble, while all of them bring at least a skin irritation, such as roughness, dryness or chapping. The white soap, on the contrary, was not observed to disturb the skin. The poll on this question resulted in 123 of the health authorities setting down their observations of the harmfulness of colored soap. Only 21 had noticed any evil effects from white soap.

For their own daily use 207 of these men and women connected with the medical profession preferred white soap; 15 preferred colored. A pure white soap is best, they say, for skin irritation is caused by the high acid content of colored soap.

Case Records
of the
Massachusetts General Hospital

ANTE-MORTEM AND POST-MORTEM RECORDS AS USED IN WEEKLY CLINICO-PATHOLOGICAL EXERCISES

EDITED BY R. C. CABOT, M.D.

F. M. PAINTER, A.B., ASSISTANT EDITOR

CASE 16201

TWO YEARS' PAIN IN THE RIGHT UPPER QUADRANT

UROLOGICAL DEPARTMENT

First admission. A married American woman sixty-two years old entered November 30 complaining of acute pain in the right side of three months' duration.

For two years she had had constant dull pain in the right upper quadrant, becoming sharp and griping after she had been about on her feet for even ten minutes, especially when she attempted to work. It had been most severe for the past three months, so that she had had to have a doctor. He gave small white tablets which caused nausea. The pain was also relieved by aspirin. She was comfortable only while lying down. She also had pain in the right side and a dull ache above the symphysis. She had frequency of urination seven to eight times by day and three or four times at night. The stream flowed freely at first, but urination never gave a sense of complete emptying. Urinary distress had been going on for "a year or more". For three months she had been afraid to eat heavy food. She also had dull pain in the right hip after walking, relieved by rest. She had lost forty pounds during the past three or four years.

One brother died at fifty-seven of tuberculosis, another at twenty-five of epilepsy. The patient had been divorced ten years. She had never been pregnant.

In childhood she had scarlet fever and minor diseases. At seventeen she had running ears. She was "nervous and high strung".

The history-taker comments, "I am inclined to think that the complaint is the outcome of poor posture and too much attention. Recommend occupational therapy".

Clinical examination showed a thin, pale elderly woman lying in bed in no discomfort, able to sit up with alacrity. Apex impulse of the heart not seen or felt. Left border of dullness 10.5 centimeters to the left of midsternum, 2.5 centimeters outside the midclavicular line. No other enlargement to percussion. Sounds of good quality. First sound at the apex split, three sounds. Aortic second sound not remarkable. Pulses and arteries normal. Blood pressure 125/90. Liver dullness absent. Abdomen tympanitic over the lower right ribs in front. Very slight tenderness on deep pressure under the costal margin. Tenderness on firm pressure over the twelfth rib posteriorly in the right costovertebral angle. No mass felt.

Amount of urine not recorded, specific gravity 1.001, the slightest possible trace of albumin at one of two examinations. Sediment of one specimen loaded with leukocytes; another, a catheter specimen, showed 4 to 8 leukocytes. Culture, no growth. Blood: 7,600,000 leukocytes, 72 per cent polynuclears, 90 per cent hemoglobin, reds 5,000,000, smear normal. Hinton insufficient. Stools: guaiac negative.

Temperature 97.1° to 99.2°. Pulse 58 to 98. Respirations normal.

X-ray examination of the spine centered on the twelfth dorsal showed a large dense irregular shadow in the region of the pelvis of the right kidney and a smaller shadow of similar density just below it. The spine showed no definite variation from the normal.

December 1 the only positive physical finding was tenderness over the tip of each twelfth rib, worse on the right. The patient hunted out the tips herself. Orthopedic and neurological conditions were suspected. The visiting physician found nothing but the residual symptom of pain following a "nervous breakdown". December 5 the patient was discharged unimproved, with reassurance and advice to visit the Orthopedic Out-Patient Department.

After her discharge a report was received on a Graham test. The gall bladder was well shown after taking the dye. It was normal in size, shape and position. The shadows previously described were well outside the gall bladder area. The gall bladder emptied after food.

History of interval. After leaving the hospital she spent most of her time upon a couch. She had almost constant dull pain in the right side of the back over the crest of the ilium and sometimes down into the right lower quadrant, and about twice a week a more intense and sharp pain over the same area. The pain was somewhat relieved by lying down and by aspirin. She could not be up and about for more than ten minutes without such an increase in pain that she had to lie down again. Her appetite had been poor.

December 11 she had plain genito-urinary films taken in the Out-Patient Department. The kidney outlines were visible on both sides. They appeared normal in size and shape. In the region of the right kidney pelvis there was a dense shadow about two centimeters in diameter and another small irregular shadow below and lateral to this.

Cystoscopy December 16 showed the bladder mucosa normal. Both catheters passed to the kidney without obstruction. The flow from both was normal. The urine was not remarkable. Pyelograms were done. The radiographic catheters passed to the level of the third

lumbar vertebra on both sides. After injection the shadow previously described was obscured in the shadow of the kidney pelvis. The pelvis was somewhat irregular in outline. The major calices were dilated and the cupping of the minor calices lost. The right ureter appeared somewhat dilated in its upper half. January 24 the films taken before injection through the catheter showed a large ring-like shadow in the region of the pelvis of the kidney. This shadow was present in the plates taken before operation. After injection through the catheter a considerable amount of the opaque mixture was visible. There was nothing characteristic in its shape.

Second admission, February 8, two months after discharge.

On examination she was ruddy faced and fairly well nourished. The heart rhythm was somewhat "tictac". The sounds were of fairly good quality. The artery walls were very slightly tortuous. A few bumpy prominences were felt along both tibiae. The pupils reacted poorly to accommodation.

Blood not recorded before operation. Nonprotein nitrogen 30 milligrams. Hinton negative. Renal function in two hours 65 per cent.

February 11 a cardiac consultant found the cardiovascular system normal for the patient's age and thought her a good surgical risk for ether anesthesia.

February 12 cystoscopy was done. The cystoscope entered the bladder easily, finding clear urine and a normal appearing bladder mucosa throughout. Both ureteric orifices appeared normal. The catheters passed readily to each kidney pelvis, and a normal flow of clear urine was obtained from each side. The sediment showed: bladder urine, 40 to 50 red cells, occasional leukocytes; right kidney urine, 3 to 4 epithelial cells, occasional leukocytes; left kidney urine, 2 to 4 red cells. Phthalein: appearance time, right ureter six minutes, left ureter five minutes. The catheters ran too poorly to be of value for a fifteen minute function.

February 13 operation was done. For the next day and a half the patient was in good condition. The afternoon of February 15 she had some cough, with a temperature of 102°. The following day a medical consultant found dullness, diminished bronchial breathing and spoken voice at the left base. The heart appeared displaced. A portable X-ray showed the lower half of the left lung field dull. The shadow was quite dense, obliterating the outline of the left border of the heart and the costophrenic sinuses. Its upper border was indefinite. The shadow was higher in the median than in the axillary line. The heart and mediastinal contents were displaced toward the left. The upper portion of the left lung and the right lung were clear.

The patient looked and felt remarkably well considering the condition and February 20 seemed a little better and less dyspneic. The wound looked very well. Two days later she began to lose ground. February 23 there were signs of consolidation in the left chest to midscapula, with loud bronchial râles. February 24 she died.

Clinical Discussion

BY RICHARD C. CABOT, M.D., AND MARCY L. SUSSMAN, M.D.

The importance of that loss of weight depends upon what she weighed before she lost it. She may now be well nourished.

It is a good thing to have things like "poor posture and too much attention" in your mind. Whether to write them down or not is another matter. Up to this point I have not the slightest idea what was the matter with the woman. Because I am going to see the autopsy findings I feel it was more than poor posture and too much attention. But without the knowledge of the outcome we might perfectly well think it a postural matter. That is a history that gives us no light. One thing that I cannot imagine is that it has anything to do with the appendix.

The heart examination is slightly suggestive of enlargement. I take it there were no murmurs.

"Liver dullness absent." What are you going to make of that? Acute yellow atrophy? That will not do. What can give absence of liver dullness?

A Student: Gas in the colon.

Dr. Cabot: That is much the commonest cause of diminution or absence of liver dullness. If you are percussing patients in a careful routine way in a big clinic you find this almost every day. When there is a question of peritonitis it is a sign of the very greatest importance. Then the gas is not in the intestine but in the peritoneum. But if you thought that every time liver dullness was absent you would be unnecessarily anxious. It usually means nothing more than flatulence. Sometimes it does mean perforation of the gut and free gas in the peritoneal cavity. I cannot think of any other possibilities in this case. A disease which would cause diminution in the size of the liver does not seem to me to be suggested so far. What are the chances of peritonitis and free gas? What is against it?

A Student: There was no spasm.

Dr. Cabot: Exactly. There was no spasm or acute tenderness such as you ought to find in peritonitis. So far we have no reason to believe there was gas anywhere except in the colon.

"Tenderness over the twelfth rib, worse on the right." You will find you yourself are tender over the twelfth rib quite often. It is sometimes a question of how hard you poke yourself or your patient when you get tenderness at that point.

"No mass" is important in relation to kidney

tumor, one of the things which we ought to consider. The frequency of micturition and the pain might go with kidney tumor.

What other records of specific gravity have we? We cannot go on at the rate of 1.001 very long. If she had diabetes insipidus and was passing six gallons of urine that gravity would be what we should expect.

MISS PAINTER: At the only other examination the amount of urine was insufficient for a specific gravity test.

DR. CABOT: Then that is all the evidence we have. It might go with very great destruction of one kidney. But people who are very nervous before making an important speech, song or act also pass urine of that consistency.

MISS PAINTER: At the second admission it was 1.016 to 1.020.

DR. CABOT: We can discount that 1.001.

We have nothing in the blood that helps us at all.

DR. MARCY L. SUSSMAN: Those plates were taken on December 2. The colon is quite full of gas, obscuring the picture. The lumbar spine and ribs are negative.

DR. CABOT: From the position of those shadows would you be prepared to say they are in the kidney?

DR. SUSSMAN: They might be in the kidney or gall bladder or they might be tuberculous nodes.

DR. CABOT: There is a suggestion of a renal lesion or a gall bladder lesion.

The visiting physician was in the dark. You take your life in your hands when you make a diagnosis of "nervous breakdown" in a patient of sixty-two, unless she had been having it for sixty-two years, a continuation of the same thing. A nervous breakdown does not begin in advanced life. We often make that diagnosis and are right in making it, but we make it in fear and trembling when we make it in a patient of sixty-two.

DR. SUSSMAN: The plates following administration of the Graham dye are missing. The plain gall bladder plates show the same as the previous plates. The shadows described previously are well within the kidney shadow.

In view of these findings they did a cystoscopy for the first time. The catheter on the right side apparently goes well up pretty nearly to the kidney pelvis. After injection the shadow that you see here is obscured by the opaque mixture. The kidney pelvis is moderately enlarged. Cupping of the minor calices is absent. The ureter is perhaps slightly dilated. The shadows are within the region of the kidney pelvis and are presumably calculi. Calcified nodes still cannot be ruled out.

DR. CABOT: Why didn't the fluid go up into the other ureter?

DR. SUSSMAN: The catheter was inserted into the right ureter. There is no reflux into the other usually.

DR CABOT: They did not try to inject that side. Am I right in thinking the evidence so far points to stone in the kidney? That is what one would naturally assume.

DR. SUSSMAN: Yes.

DR. CABOT: If the patient were of the other sex we would expect some bumpy prominences on the shins. Almost everybody has been kicked in the shins often enough to have a few bumpy prominences. Even in a woman they are not usually important as evidence of syphilis.

I should say the sediment examination showed nothing whatever. The appearance time shows no significant difference.

PRE-OPERATIVE DIAGNOSIS

Nephrolithiasis.

OPERATION

The right kidney was exposed. The perirenal fat was not adherent and readily stripped free from the kidney surface. It was however slightly adherent over the pelvis of the kidney, through which the stone could be readily felt. A perpendicular incision three-quarters of an inch long was made over the stone, which was easily extracted with stone forceps. A number 16 catheter was then introduced into the lower calyx, which was washed free of many small pieces of gravel with saline solution. Probing with various instruments failed to reveal any further gritting.

FURTHER DISCUSSION

DR. CABOT: The operation verified your diagnosis and mine, both of which were taken from the X-ray. We could not have made such a diagnosis by any other method. The credit is wholly due to X-ray.

We do not know whether the heart appeared displaced towards the lesion or not, whether there was massive collapse, in which case the heart goes towards the lesion, or fluid, in which case it goes away from it.

DR. SUSSMAN: This is the dullness described. These plates were taken on the same day, one on inspiration and one on expiration. The lower half of the left lung field is dull. The intercostal spaces on the left seem definitely smaller and narrower than those on the right. Though there was slight rotation in the films, the heart is definitely over to the left, that is, towards the lesion. The trachea does not appear to be very much displaced. The patient was sufficiently rotated so we cannot tell exactly. Those findings we think consistent with collapse of the left lower lobe, but since the history states there was bronchial breathing we cannot eliminate pneumonia.

DR. CABOT: Can you eliminate fluid?

DR. SUSSMAN: No; the outline of the diaphragm is obscured and the costophrenic angle obliterated. The only thing against fluid is that the heart is displaced towards the affected side.

DR. CABOT: There are three possible conditions there, one not of great importance,—massive collapse is not a serious complication; one more important, pleurisy; and one very much more important, pneumonia. We do not know of any others up to date. The point was brought out of the heart's displacement apparently towards instead of away from the lesion. We try to forget the fact that we know she died and to argue as if we did not know it. She certainly could not die of massive collapse and could not die of pleurisy. The only thing I can think of is to assume that she died of pneumonia.

That brings up the question of the wisdom of operating on that kidney. You know may people carry a number of stones in the kidney for a long period of time without finding it out. We X-ray one kidney for stones because all the symptoms have been on that side. But the X-ray shows just as much stone on the other side where there had been no symptoms. Whenever a patient dies after an operation for kidney stone you have to ask yourself, "Did he need operation?" This patient seems to have been unfit for the ordinary activities of life, and we do not know any other cause except that stone. It was not one of the silent stones which produce no symptoms. Presumably it was disqualifying her for her ordinary life. But postoperative pneumonia comes once in so often in surgical cases. Somebody in the family should always be warned that though the mortality from this operation is only one or two per cent, there is some chance of postoperative complications such as pulmonary embolism or pneumonia. Nobody, no matter how good a surgeon, escapes such mischances.

CLINICAL DIAGNOSIS (FROM HOSPITAL RECORD)

Right renal calculus.

ANATOMIC DIAGNOSES

1. *Primary disease.*
   Nephrolithiasis, right kidney.
2. *Secondary or terminal lesions.*
   Pyelitis, left kidney, slight.
   Pneumonia, lower lobe of left lung.
   Acute fibrinous pleuritis.

PATHOLOGIC DISCUSSION

BY TRACY B. MALLORY, M.D.

The autopsy showed a pneumonia of the left lower lobe with acute fibrinous pleurisy. There is no measure of the amount of fluid. The other organs were all rather uniformly small. The left kidney showed a very definite though not advanced degree of pyelitis. I rather think the infection about the stone was the cause of the symptoms rather than the stone itself. The stone had been there for a long time. The infection was of recent date and there was as yet little destruction of the kidney. There was a considerable amount of fine gravel scattered through the calices. There was nothing else of significance.

DR. CABOT: If you had this patient's symptoms and this stone was found by X-ray, would you be operated on?

DR. MALLORY: I think I should, but I should probably have waited until summer to have it done.

DR. CABOT: You think the chances of pneumonia are less in the summer?

DR. MALLORY: I am not sure; but that seems to be the general opinion. One of the physicians of this hospital has looked up the post-operative pneumonias for the last two years. In this series the proportion of cases seemed to be the same in summer as in winter. But of course that is much too small a series to judge by. The general impression among both physicians and surgeons is that postoperative pneumonia is much commoner in the winter months. If you have an elective operation, as this was, you may as well put it off until you are out of the pneumonia season.

THERAPEUTIC NOTE

One of the sedatives used in this case was allonal, "a good mild sedative with an action similar to that of veronal. It works well with some patients, not with others." (Dr. Chester M. Jones.) "It seems on the whole to produce less reaction the next day than the other sedatives, and to be possibly less habit-forming. It has to be tried out with the individual patient." (Dr. Channing S. Swan.)

CASE 16202

BILIARY FISTULA AFTER CHOLECYSTECTOMY, WITH APPROPRIATE TREATMENT

An American engineer seventy years old entered April 5 complaining of a draining sinus in the right upper quadrant of four weeks' duration. The past history, family history, and marital history were essentially negative with the exception of a previous entry.

Three years before, in April, he was admitted to the hospital after an illness of four days. Four days before admission, after returning from work, he felt chilly and during the night perspired a good deal. The following day he felt much better and returned to work. The day after this he developed a steady pain in the right upper quadrant which radiated around the angle of the right scapula. There was also a "neuralgia-like" ache in the right shoulder. On the following day there was again cessation of pain, but on the fifth day the pain returned and by afternoon was severe enough to require morphine from his own doctor. He was sent into the hospital shortly after the administration of morphia. His bowels had been regular preceding the onset of illness, his stools were normal in color, but his urine was very dark for two or

three days. He had no nausea, vomiting, or other distressing symptoms.

Physical examination revealed a well-developed, rather obese elderly man, mentally alert, complaining of abdominal pain. The positive findings were carious teeth, a slight left-sided enlargement of the heart with frequent extrasystoles and a distended, tympanitic abdomen with very definite right upper quadrant spasm and tenderness. His initial temperature was 100°; his white count 21,000. Examination of the urine showed a trace of bile, but was otherwise negative.

Operation was performed at once, with a preliminary diagnosis of perforated gall-bladder. A high right rectus incision was made. On opening the peritoneum bile-stained pus escaped. A gangrenous gall bladder was found among recent adhesions. When these adhesions were gently separated pus and bile poured out. Great care was taken not to break any walling-off adhesions. The gall bladder was opened, emptied of pus and stones, and more stones were scooped out. These stones were moderately large and facetted. A tube was sewed into the gall bladder and a cigarette wick inserted towards the right flank. The patient was in good condition at the end of operation.

After operation the patient made a fairly satisfactory convalescence, but for the first two weeks there was not only profuse biliary drainage, but sepsis in the wound, which had to be treated by multiple incisions and drainage. Three weeks after operation there was a note stating that the patient was doing well except for the danger of the wound breaking open. By this time he was draining much less bile. One month after operation he was discharged with a wound that was still not healed, but clean and granulated. There was a note made at the time of discharge that "it is possible, if the gall bladder is not removed, that the patient may have more trouble from it in the future, in which case we would advise his returning for cholecystectomy".

Since discharge the patient has never been entirely well. He has had intermittent attacks of right upper quadrant pain associated with chills and jaundice, also some pain running across the epigastrium to the left upper quadrant. With these attacks there has been some elevation of temperature and at these times he has noticed dark colored urine and light colored stools. The attacks usually lasted from one-half to two hours and occurred approximately once a month. For the past three months the jaundice has been nearly continuous, although there may have been some fluctuation in intensity. Five weeks before the second admission he first noticed a new type of pain in the right upper quadrant. This was constant, dull, and gradually increased in severity. Accompanying this there was noted a swelling at the top of the old scar. This swelling increased in size and became very painful. About four weeks before admission this broke spontaneously, discharging about a cupful of foul purulent material, followed by profuse drainage of clear bile, necessitating a change of dressing every two hours day and night. This drainage continued until the day before entry, when the sinus sealed over and the swelling in the region of the sinus began to reappear. Since the establishment of this biliary fistula the patient noticed gradual decrease in jaundice and an accompanying change in the urine and bowel movements. Before admission the urine was nearly normal and the stools were light brown in color.

For the past year he had been on a restricted diet prescribed by his doctor, and had lost thirty pounds. Recently his diet was increased and he gained several pounds and felt considerably stronger. Two weeks before admission he first noticed a small swelling in the right groin which appeared only when standing and was easily reducible.

Physical examination showed a moderately jaundiced, emaciated old man in no distress. The sclerae were icteric. There was marked arcus senilis. The chest was rather flat and there was marked prominence of the xiphoid. The lungs were clear. The examination of the heart showed the apex impulse in the sixth space, the left border of dullness one centimeter out beyond the midclavicular line, sounds regular but rather poor in quality. The blood pressure was 120/55. There was marked peripheral arteriosclerosis. The abdomen showed a large hernia in the right upper quadrant scar, the ring being about 8 by 10 centimeters. There was a tiny sinus near the top of the scar, bile-stained, with a small fluctuant area on the right. There were multiple small scars around the hernia. The liver edge was easily palpable a handsbreadth below the costal margin. It was smooth and non-tender. There were no masses, no spasm, and no tenderness. There was an egg-sized right inguinal hernia, easily reducible. Rectal examination showed bilateral symmetrical enlargement of the prostate with loss of the interlobar sulcus. The urine examination was essentially negative. The stools were light brown but otherwise negative. The blood showed nothing remarkable except a mild secondary anemia. The icteric index was 25. The blood was group 4.

The patient was seen by the surgeon who operated on him three years previously, and by a medical consultant. Both agreed that the probable diagnosis was stone in the common duct and that surgery was indicated. The patient was observed for several days in the hospital, received a good diet which he retained without difficulty, and was digitalized before operation.

Operation, which was done under ether, was as follows: The old scar was excised and the peritoneum opened. The lower abdomen was

found to be completely walled off by adhesions. The rectus borders were about five inches apart. The tract of the sinus was followed down and a structure the width of a thumb and a half was identified as a probable common duct. A needle was introduced and bile obtained by aspiration. The common duct was then opened and by digital examination a stone was felt at the lower end of the duct. This was removed. The stone was facetted and about three-quarters of an inch in diameter. A catheter was introduced and saline washed down into the duodenum and also upward into the hepatic ducts. No other stones were felt. A catheter was put in the hepatic duct through the common duct opening and sewed in. The stump of the gall bladder was removed and the wound closed.

Biliary drainage was good, but on the day after operation there was a rise in pulse rate from the previous level of 80 to 160, followed twenty-four hours later by a fall to a level of about 130. The blood pressure was maintained only a little below the initial level. It was felt that the tachycardia was due to bleeding from the wound and possibly internally. A transfusion of 500 cubic centimeters was given with some slight temporary improvement in the patient's condition. The following day the blood pressure dropped a few points in the morning, then came back and remained constant all day at a level of 115/60. There was still some oozing from the wound, however, and, in spite of the fact that the pulse did not rise appreciably during the next two days, it was felt that the tendency to hemorrhage was not improving. A second transfusion was given three days later. Following this second transfusion the patient's condition improved markedly and no further bleeding of moment occurred.

An attempt had been made to give bile salts by mouth shortly after operation, but the patient could not take satisfactory amounts. After the second transfusion it was decided to attempt again to give the patient a good quantity of bile salts. Accordingly the bile collected by drainage was reintroduced by nasal catheter and at the same time a good amount of fluid and glucose was introduced. This treatment was continued for several days and was coincident with the patient's general improvement. Subsequent convalescence was uneventful.

Discussion

BY CHESTER M. JONES, M.D.

This case presents two rather interesting therapeutic problems. In the first place, because of the critical condition of the patient at the first operation it was impossible to explore the biliary tract. Because of the gangrenous gallbladder, all that was possible at that time was to remove obvious stones and to drain. The surgeon's note at discharge indicated that he expected the patient would have further symptoms, and this was borne out by the subsequent history of the case. The recurrent attacks of pain and jaundice were logically thought to be due to a stone which had been left behind and which was probably in the common duct, although one would have to consider in addition the possibility of a chronic inflammatory condition around the common duct as the cause of the symptoms. The development of a biliary fistula simply was the last step in a more or less complete blockage of the common duct with sufficient back pressure to open up the old line of drainage. The only hope of treating the patient's symptoms was surgery directed at the common duct, and the operative findings were such as could have been logically predicted, namely, marked dilatation of the duct with a stone at the base. The surgical removal of this stone should result in a complete cure for the patient as far as his symptoms are concerned.

A second and very important feature of the case was the occurrence of postoperative bleeding. Unlike most cases with practically complete obstruction from common duct stone, the situation had been partially relieved in this instance by the development of a biliary fistula. Jaundice, though present, was not a marked feature of the case as seen at second entry. In the absence of serious liver injury, it was not thought that there was as great a danger from postoperative bleeding as is frequently seen in cases of obstructive jaundice. Unlike other cases of obstructive jaundice without biliary fistula, there had been a constant loss of bile through a sinus for six weeks before operation. The biliary drainage occurring through this spontaneous biliary fistula was profuse and had resulted in a real loss of valuable substances in the bile, bile salts and presumably other important substances, and was associated with a definite hemorrhagic tendency which was not recognized at first. On the occurrence of the first sign of oozing, which came three days after operation, transfusion was the logical method of treatment and at once controlled the situation for the time being. Transfusion alone, however, was apparently not sufficient, and continued loss of bile with no immediate improvement in liver function was sufficient to allow a continuation of the oozing. This again was checked by a second transfusion and was also aided by giving the patient the necessary elements to restore a better balanced liver function.

Hemorrhage after surgery on deeply jaundiced patients is an event with which both surgical and medical men are familiar and which, as a rule, can be forestalled by operating before severe damage has been done to the liver. In this instance, however, because the jaundice had been diminishing rapidly over a number of days and was not particularly striking at operation, the potential damage to the liver and hence to the control of bleeding tendencies by loss of bile

salts and other substances was temporarily overlooked.

This case illustrates a failure in liver function, as evidenced by a definite tendency to bleed from cut surfaces, due to prolonged biliary drainage, controlled temporarily by transfusions of whole blood and permanently by reintroduction of the necessary elements in the bile.

DIAGNOSES

Chronic cholecystitis.
Stone in the common duct.
Chronic biliary fistula.

NATIONAL SOCIETY FOR THE PREVENTION OF BLINDNESS

New York City, May 3—A record of steady achievements in the campaign to conserve vision is outlined in the fifteenth annual report of the National Society for the Prevention of Blindness. "Let There Be Sight!" is the commanding title of the report which is being forwarded to members of the Society throughout the United States.

Tribute to the memory of the late Chief Justice William Howard Taft, who was Honorary President of the Society for the last 15 years, is paid on the opening page. Throughout the pages following, there runs a note of hopefulness for the chances of materially reducing the number of recruits to the ranks of the blind.

"We are especially concerned with the problems of that enormous number of children and adults, otherwise perfectly normal, who are constantly handicapped in their work or study and in their enjoyment of life because of defective vision," explained Lewis H. Carris, Managing Director of the Society. "With care, early in the life of a child, weak vision often may be strengthened or, at least, frequently kept from diminishing and perhaps being lost entirely. Science is teaching us that most of the causes of blindness are preventable."

A number of activities directed at preservation of the eyesight of children, discussed in the report, trace the interest of the Society from the general health of the expectant mother, even before the baby's birth, on through successive stages of the child's life until it has been given every opportunity for clear vision which modern science affords.

An increase of 45 "sight-saving classes" within the last year is noted in the report. There are now 350 of these classes for the education of children with seriously defective vision in 95 cities of 21 states. Through the use of large type books, movable desks, ideal lighting and special teaching methods, children with little vision are not only given the same sort of education that children with full vision receive, but they are taught how to conserve their remaining sight. The Society estimates that approximately 5,000 such classes are needed in the United States. To train teachers for this work, special courses will be given in the coming summer months at Columbia University, the University of Chicago, the University of Cincinnati, and the State Teachers' College in Buffalo, N. Y.

Trachoma, the disease of the eyelids which leads to blindness, continues to baffle the best minds of ophthalmology, the report discloses. Renewed impetus to research into the mysteries enshrouding it was given through a five-year program of investigation started recently by the Medical School of Washington University, St. Louis, and financed by the Commonwealth Fund. In addition to coöperation with the federal trachoma clinic at Rolla, Mo., during 1929, the National Society for the Prevention of Blindness assisted several other agencies in a study of the incidence of trachoma among the Chippewa Indians of Minnesota.

Concerning the formation of the International Association for the Prevention of Blindness at The Hague last September, the report states:

"It is noteworthy that this world-wide effort was inspired and accomplished largely through the example of efficiency and effectiveness on the part of the American National Society for the Prevention of Blindness. The international organization was established after a joint study by the American Society and the League of Red Cross Societies regarding the international aspects of sight conservation. Twenty-five countries and numerous interested bodies, including the League of Nations, were represented at The Hague conference. Dr. Park Lewis of Buffalo, N. Y., Vice-President of the American Society, was elected also Vice-President of the International Association; Lewis H. Carris, Managing Director of the American Society, was appointed United States Correspondent for the International Association."

WEEKLY HEALTH INDEX

Telegraphic returns from 64 cities with a total population of twenty-nine million for the week ending May 3, indicate a mortality rate of 13.7 as against a rate of 12.6 for the corresponding week of last year. The highest rate (25.8) appears for Memphis, Tenn., and the lowest (8.6) for Yonkers, N. Y. The highest infant mortality rate (174) appears for Canton, Ohio, and the lowest for Camden, N. J., and Somerville, Mass., which reported no infant mortality.

The annual rate for 64 cities is 13.9 for the eighteen weeks of 1930, as against a rate of 15.4 for the corresponding weeks of 1929.

THE CLAIM FOR THE FIRST APPENDECTOMY

It has been claimed that the first successful appendectomy was performed by Dr. William W. Grant, an Alabama surgeon practicing in Davenport, Iowa, April 23, 1883. The patient lived about twenty-five years afterward.

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PUBLICITY CONCERNING HEALTH

THOSE persons who have noticed the trend of affairs relating to health problems cannot avoid contrasting the customs of former years with those of the present, particularly with reference to newspaper publicity.

Formerly there was a prevalent idea among physicians that the laity could not assimilate information pertaining to health beyond limited fields. It was left largely to the doctor to give personal instruction with respect to what should or should not be done in dealing with infirmity or disease and any general publicity on medical matters was not in good form on the principle that a little knowledge is likely to be dangerous. Now newspaper and magazine articles, popular lectures and bulletins pertaining to the promotion of health occupy much space in the literature of the day. More and more new treatments and discoveries tending to elucidate the mysteries of disease are given prominence in news columns.

One field assiduously cultivated by the newspapers is that of personal interviews of physicians with the purpose of getting authoritative statements.

If properly controlled, interviews and reports are useful in leading the laity to appreciate approved methods of dealing with medical problems and especially valuable in establishing confidence in the resources of scientific medicine, but with this tendency there have been exhibitions of poor taste, prematurity and the suspicion of personal advertising.

Objectionable forms of publicity may have been in some instances due to an honest purpose without common sense control, but some of the exhibitions are beyond the pale of generous interpretation of the motives of the author.

How to meet the inherent difficulties is one of the problems before the profession. The overenthusiastic research man is bubbling over with the desire to be first to make his beliefs known to the world apparently expecting that subsequent investigations will bring evidence to bear in support of his immature conclusions.

History has recorded many examples of certain types of publicity which have brought discredit to the profession and disaster to those who have hoped for relief of suffering.

The publicity custom has grown to the extent that organized medicine may find it necessary to make public its approval or otherwise of statements made by individuals or quotations from articles.

It may be necessary to go still further and have societies request their members to secure approval of material designed for publication by the duly appointed officers of a society.

Examples of questionable publicity have appeared in radio talks.

These comments do not apply to reports of lectures under the auspices of reputable societies or to public health departments which should be encouraged to use all possible avenues of approach in sending abroad informative material.

The time may have come when only endorsed publicity agents may be encouraged to publish opinions relating to medicine because so much misleading material has been distributed that some action seems to be necessary to create confidence in the purpose of the profession to keep the public informed of all useful facts. An intelligent public will always be essential in public health progress.

ASPECTS OF BIRTH CONTROL AS IT AFFECTS PHYSICIANS IN MASSACHUSETTS

ON May 7, 1930 a meeting was held at the Medical Library by about seventy-five physicians to consider the subject of certain aspects of so-called birth control as it affects physicians in Massachusetts.

Dr. James F. Cooper of New York (formerly of Boston), Medical Director of the American Birth Control League and author of several treatises relating to contraception, addressed the meeting.

He gave a detailed account of conditions leading up to the enactment of laws in the several states and also the federal statute, explaining that the original federal law sponsored by Anthony Comstock was designed to abolish obscene and indecent literature and that no proponent of legislation relating to contraception had in mind a purpose to impose restrictions on physicians in dealing with the advisability of giving information with respect to the prevention of pregnancy.

The wording of the various laws has however created doubt as to the possibility of physicians having to meet prosecution based on complaint of some one antagonistic to the practice of giving advice to women who need to be spared the dangers of pregnancy.

Although doctors have been called before the courts because of alleged infraction of the laws relating to this subject none has been convicted but it was explained that the fear of prevention has led to the conviction that the laws should be clarified so that, although intended to apply only to obscene or indecent literature, there would be no misunderstanding of its intent or misapplication of its purpose. At the present time it was pointed out that many persons representing physicians and the laity feel that a change in the statutes is desirable.

The most effective organized movement was taken by the National Gynecological Society at a recent meeting in Washington by the appointment of a committee which will work for a modification of the federal statute.

Dr. Cooper enumerated the usual list of diseases which are regarded as justifying contraceptive practice and gave his personal opinion of the relative value of the various methods employed.

The address was a clear exposition of existing conditions and the purpose of those who desire to have the present laws modified. Dr. Cooper offered to supply appropriate literature to anyone who would apply.

Previous to the meeting he was entertained at the Harvard Club by a group of physicians.

THIS WEEK'S ISSUE

CONTAINS articles by the following named authors:

LEAKE, JAMES P. A.B., M.D. Harvard 1907. Surgeon, United States Public Health Service. His subject is: "Vaccination". Page 937. Address: 16 7th Street, S. W., Washington, D. C.

KASANIN, J. B.S., M.S., M.D. University of Michigan 1921. Research Associate, Special Research, Boston Psychopathic Hospital. Assistant Neurologist, Beth Israel Hospital. Visiting Psychiatrist, Federated Jewish Charities of Boston. His subject is: "Early Psychic Invalidism". Page 942. Address: 483 Beacon Street, Boston.

LEE, ROGER I. A.B., M.D. Harvard 1905. His subject is: "The Relation of Clinics and Health Associations to the Medical Profession". Page 945. Address: 264 Beacon Street, Boston.

RICHARDSON, DENNETT L. A.B., M.D. University of Pennsylvania 1905. Assistant Superintendent and Resident Physician of the Rhode Island Hospital, Providence, R. I. 1907-1909. Superintendent and Resident Physician, Providence City Hospital since 1909. His subject is: "The Relation of Clinics and Health Associations to the Medical Profession". Page 947. Address: Providence City Hospital, Providence, R. I.

BIGELOW, GEORGE H. A.B., M.D. Harvard 1916. Doctor of Public Health 1921. Commissioner of Public Health for Massachusetts. His subject is: "The Relation of Clinics and Health Associations to the Medical Profession". Page 949. Address: State House, Boston, Mass.

OBER, FRANK R. M.D. Tufts College Medical School 1905. Assistant Dean, Harvard Medical School in Charge of Courses for Graduates. Assistant Professor, Orthopedic Surgery, Harvard Medical School. Surgeon-in-chief, New England Peabody Home for Crippled Children. Associate Surgeon, Children's Hospital, Boston. Surgeon, Vermont Infantile Paralysis Commission. His subject is: "The Relation of Clinics and Health Associations to the Medical Profession". Page 953. Address: 234 Marlborough Street, Boston.

BIRNIE, JOHN M. A.B., M.D. Harvard 1906. F.A.C.S. Visiting Surgeon, Springfield Hospital; Mary Lane Hospital, Ware; and Monson State Hospital. Consulting Surgeon, Shriners' Hospital for Crippled Children, Springfield. Secretary, New England Surgical Society. His subject is: "A Springfield Medical School?" Page 956. Address: 14 Chestnut Street, Springfield, Mass.

COUES, WILLIAM PEARCE. M.D. Harvard 1894. F.A.C.S. Surgeon to Outpatients, Massachusetts General Hospital. Consulting Surgeon, Massachusetts Eye and Ear Infirmary. Instructor in Surgery, Tufts College Medical School. His subject is: "Alfred Nobel: Medical Incidents and Nitroglycerin". Page 958. Address: 12 Monmouth Court, Brookline.

The Massachusetts Medical Society

SECTION OF OBSTETRICS AND GYNECOLOGY

Louis E. Phaneuf, M.D., *Chairman* — Alonzo K. Paine, M.D., *Secretary*

Frederick J. Lynch, M.D., *Clerk*

Pregnancy and Fibroids

The complication of pregnancy presented by coëxistent uterine fibroids offers for consideration two aspects usually distinct but often definitely related—the first, the influence of the pregnancy on the growth, and the second, the influence of the growth on the pregnancy.

I. The similarity in structure of the tumor and the organ which supports it renders the fibroid susceptible to the same changes which the uterus itself undergoes during pregnancy. It, therefore, commonly happens that fibroids, which in the non-pregnant state of the uterus grow slowly and unappreciably, if they grow at all, hypertrophy rapidly under the influence of pregnancy. As a result of the changes incident to gestation previously undiscovered fibroids often make their appearance. The effect of this stimulation of growth is the introduction into the complication of certain mechanical as well as histological factors which add difficulty to the problem. By reason of its increase in size, the vitality of the tumor is itself jeopardized rendering it susceptible to degenerative changes due to pressure and interference with circulation. Suppuration, sloughing and other destructive processes are occasionally encountered. Hypertrophy and markedly increased vascularity are changes which seem inevitable. Degenerative tissue changes, of which "red degeneration" is the most serious, occasionally occur.

If the tumor should escape harm during the pregnancy, it participates in the involution of the uterus after delivery and generally undergoes considerable diminution in size. That the fibroid ever entirely disappears or is ever reduced to its original size, as a result of involution, seems incredible, although such claims are made.

II. The influence of fibroids upon pregnancy is well recognized. When one considers that reliable observers of extensive experience report the incidence of uterine fibroids as varying from 20% to 40% in all women, and that they occur most frequently between the ages of twenty-five and forty,—that is, in the child-bearing era, it may be safely stated that no large obstetrical practice will be long exempt from the problems which this complication presents.

The coëxistence of fibroids and sterility has long been recognized, but whether their relation to this condition is incidental or causative is still debatable. Lynch, after careful study of a large series of cases, concludes that "sterility in women with uterine fibroids may be due to congenital causes rather than to the presence of the tumor".

The rôle which uterine fibroids play in the causation of complications in pregnancy and labor seems to depend, in actual practice, upon two factors,—their size and number and their location.

The effect of the first factor is chiefly mechanical. Large tumors, singly or in numbers, are capable of producing disagreeable, painful and even harmful pressure on adjacent structures, and frequently cause faulty positions and presentations of the foetus. If degenerative processes occur in them serious systemic reaction in the patient may result.

The second factor, that of location, is twofold in its aspect. The first consideration is the location of the tumor in its relation to the uterus as a whole, that is, whether it lies in the body of the uterus or in the cervix.

Fibroids of the cervix though relatively infrequent are apt to give rise to a greater variety of complications than those placed higher in the uterus. Abortion, distortion of the cervical canal, premature labor, early rupture of the membranes, prevention of engagement of the presenting part, interference with dilation of the cervix and obstruction to delivery are among the untoward effects of cervical fibroids.

Tumors of the body of the uterus, especially if multiple, may produce, because of the pressure they exert on the other organs, insupportable pain, uterine irritability and occasionally premature labor.

The second consideration is the location of the tumor in its relation to the layers of the uterus, whether subserous, intramural (interstitial) or submucous. From the obstetrical standpoint the submucous type is the most prolific in causing complications. In pregnancy, as in the non-pregnant state, they cause general hypertrophy of the uterus and the cervix with marked hypertrophy of the endometrium, an undoubted factor in the occurrence of uterine hemorrhage and abortion. To this factor also the high incidence of abnormal implantation of the placenta in the presence of uterine fibroids may be attributed. Since they are always centripetal in growth they encroach upon the uterine cavity and the cervical canal, producing distortions that probably account for the frequent occurrence of faulty or abnormal positions and presentations of the foetus. As they are frequently pedunculated they may grow toward the os and distend the cervix, thus favoring invasion of the uterine cavity by vaginal bacteria.

Both the submucous and intramural types of fibroids may cause abnormal muscular reactions of the contracting uterus. Usually the contractions are more violent and painful than normal, but occasionally the reverse is true and uterine inertia may be present. Hemorrhage during labor and the puerperium is more apt to be met in these types than in the subserous

variety. If degenerative or necrotic processes occur, delayed involution and a prolonged febrile convalescence may result. In rare instances the spontaneous expulsion of fibroid masses may take place.

The principal dangers met in the subserous type of fibroid are impaction in the pelvis and twists of the pedicle. Both, fortunately, are rare.

The successful management of pregnancy and labor in the presence of a uterine fibroid will depend largely upon the following factors:

1. Early recognition of the existence of the tumor.
2. Correct information as to its location in the uterus.
3. A reasonable assumption as to its type.
4. Careful observation of its growth.
5. Study of its relation, (a) to the position and presentation of the foetus, and, (b) to the cervix and bony birth canal.

The nearer one is able to approach this optimum of knowledge before the onset of labor the more safe for the patient and the less anxious for the attendant will the conduct of the case become.

Only a small number of pregnancies complicated by fibroids require special treatment during the antepartum state. Myomectomy may be necessary for torsion of the pedicle, degeneration, impaction or great size of the tumor. Hysterectomy is rarely necessary. Removal of the tumor or the uterus when slight or no symptoms are present is to be condemned.

The problem of management in labor depends almost wholly upon the presence of hemorrhage, obstruction and uterine inertia. The ultimate choice of treatment of these complications must be made when they occur. It is the part of prudence, however, to make, if possible, an early estimate of the situation and determine in advance a definite policy of conservative treatment, being prepared to resort to more radical measures when the indications arise.

Questions of a similar nature to the above will be discussed in the *Journal* each week. They may be addressed to the Clerk of the Committee in care of the *Journal* and will be answered by members of the Committee of the Section of Obstetrics and Gynecology.

THE PLYMOUTH MEETING

SINCE the publication of the plans of the Committee of Arrangements and the illustrations of places of historical importance, evidence of interest in the annual meetings of the Massachusetts Medical Society has been growing.

The Shattuck Lecture by Dr. W. I. Clark will deal with important ethical and economic problems before the profession. Dr. Clark is especially qualified by his experience in a large industrial plant to clarify some of the unsettled questions which have agitated the minds of those who have felt that the relation of the practice of medicine to industry is of importance.

Everybody who can, should arrange for two full days and evenings in Plymouth at the time of the meeting.

MISCELLANY

TUBERCULOSIS ABSTRACTS

Proposals for the treatment of tuberculosis by some form of nutritional therapy reappear periodically. Recently, the regimen devised by Gerson, based on the studies from Sauerbruch's clinic in Munich, has attracted the attention of physicians and laymen, largely through incomplete press reports of a "salt-free diet". Edgar Mayer of Saranac Lake was privileged to visit Sauerbruch and Gerson's clinic to observe their dietary methods. Upon returning to this country, Dr. Mayer and his associates, with the assistance of Frau Jungklaus who received her dietetic training in the German clinic, applied the method to a group of 30 patients. The results are reported in the *Journal of the American Medical Association*, December 14, 1929, from which the following abstracts are derived:

BASIC (VITAMIN) FEEDING IN TUBERCULOSIS

The diet in advanced tuberculosis should be of a caloric value sufficient to cover the metabolism (increased by the toxemia especially) as well as the atrophy induced by the disease. But the pulmonary mechanism should not be burdened by an excessive caloric intake. Fifty calories per kilogram is the optimum. Theoretically, the protein intake should be increased, but this accelerates metabolism and hence prevents pulmonary rest. On a 3,500 calorie diet, a daily intake of 100 grams of protein will maintain a tuberculous patient in positive nitrogenous equilibrium.

GERSON DIET IS BASE-FORMING

Fulfilling the caloric requirement is not enough, for the wasting in tuberculosis involves a corresponding demineralization. The Gerson diet makes good this deficiency by including base-forming solids. The German physicians seem to be confused about the acid-forming and base-forming values of the dietary, but Mayer states that "an analysis of the diet reveals definitely its base-forming nature". Sodium chloride is excluded because it favors tissue hydration, which is already excessive in tuberculous processes. The most significant feature of the dietary is that it is rich in vitamins A to G, and this constitutes a specific advance in this particular form of dietary treatment of tuberculosis. A sample diet for one day is shown in the table.

Mayer observed in the German clinics "definite healing in advanced cases of lupus vulgaris of the face and mucous membranes that had previously been resistant to all other accepted forms of treat-

ment. These results seemed far more striking to us than those claimed for the other forms of tuberculosis, which included tuberculosis of the bones and joints, lymph nodes, lungs, peritoneum and genito-urinary tract, both with and without sinuses." Lupus is a prevalent complication in European countries, while in the United States it is relatively rare.

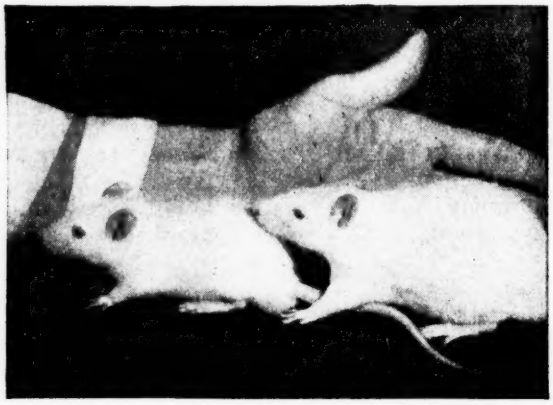
DIET TESTED IN UNITED STATES

Upon returning to this country, Mayer selected 30 patients who had failed to respond to accepted therapeutic measures for two or three years. Of these, 10 were excluded before the end of the six months' period for various reasons. The 20 patients who completed the experiment showed a substantial gain in weight which it had been impossible to attain by previous procedures. Many of the alimentary disturbances, which had persisted on other diets, cleared rapidly with this regimen. The diet was well tolerated except in two instances. It was effective in diminishing fatigue and induced a sense of well-being. The slight elevation of temperature disappeared in a few cases.

Physical and roentgenological examinations of the chest showed in about one-third of the cases definite clearing, with an occasional contraction of a cavity. The other patients did not show any marked changes. The quantity of sputum diminished considerably in about half the cases, but in none did it become negative for tubercle bacilli. A few of the patients showed marked diminution of cough. Hemorrhages occurred in some during the experiment as well as before. Chest pains disappeared in a few who constantly complained of this symptom before. Two cases of intestinal tuberculosis which had resisted other therapeutic procedures cleared up clinically, and the roentgenological filling defects of the colon disappeared; one remained unchanged.

EXPERIMENTS ON RATS

The author cites also chemical and nutritional studies in two groups of albino rats to determine the effect of acid- and base-forming diets on the blood, bones and metabolism. Compared with the rats on the acid-forming diet, those on base-forming diets gained markedly in weight, their bones were larger, firmer and non-rachitic, their muscular tone was better, they were more vigorous, their appetite was keener, they did not succumb to infection as easily; in short, the general metabolism and well-being was superior.



Rats fed on acid-forming (left) and base-forming (right) diets.

Dr. Mayer realizes that his preliminary study of human patients permits of no dogmatic statement because the group was distinct from those of the German clinics, where more favorable results were observed, and because of the difficulty of clinic control; the only means being the selection of patients who failed to respond to accepted therapeutic measures for two or three years. The favorable results in about one-third of the patients studied for a period of six months of careful supervision may perhaps be attributed to the effect of the dietary. But critical clinicians may justly maintain that contributory factors other than diet were operative in the end-result. The psychic element, the enforced rest, the occasional tendency of the disease to subside spon-

SAMPLE DIET FOR TUBERCULOSIS PATIENT FOR ONE DAY

3,500 calories; 70 Kg.; 1 Gm. per Kg. of body weight; basic, 40 cc.

7 A. M.			
Oatmeal	4 T	1⅔	oz.
Sugar	1 T	½	"
Cream	2 T	1	"
8 A. M.			
Br. tomatoes	1	3⅓	"
Stale bread	1 sl	1	"
Sweet butter	2 pats	⅔	"
Cream cheese	1" cube	½	"
Honey	1 T	½	"
Milk	1 C	8	"
11 A. M.			
Lemon juice	½ C	4	"
Sugar	2 T	1	"
Egg yolk	1	⅓	"
Butter	1 pat	⅓	"
Crackers	2	½	"
1 P. M.			
Veg. soup	1 C	8	"
Potato	1	5	"
Peas	Serv	3⅓	"
Carrots	Serv	3⅓	"
Lettuce	Serv	1⅔	"
Mayonnaise	1 T	½	"
Bread	1 sl	1	"
Butter	2 pats	⅔	"
Milk	1 C	8	"
4 P. M.			
Cocoa	1 C	8	"
Bread	1 sl	1	"
Butter	1 pat	⅓	"
6 P. M.			
Rice	2 T	1	"
Lettuce	Serv	1⅔	"
Cheese	1" cube	½	"
Bread	1 sl	1	"
Butter	1 pat	⅓	"
Milk	1 C	8	"
8 P. M.			
Oatmeal	4 T	1⅔	"
Sugar	1 T	½	"
Cream	2 T	1⅓	"
Almonds		⅓	"

In addition, the patient receives one tablespoon cod liver oil three times daily, much fruit between meals and about five grams of meat weekly.

taneously, the wholesome food, its scrupulous preparation and careful cooking, and the individual service are factors that must be considered in a final analysis.

IMPORTANCE OF VITAMINS

Mayer believes that the inorganic constituents, whether acid-forming or base-forming, are not as important as the vitamin content of the dietary. Such foods as milk, vegetables, and fruits are rich in vitamins and are base-forming. These two factors regulate cellular metabolism, and the utilization of minerals depends on the simultaneous presence of vitamins in the alimentary tract.

Extravagant and unwarranted claims have been made for the Gerson diet but it is certainly not a cure for tuberculosis. In isolated cases, it may be of value but only as an aid to the accepted routine treatment whose mainstay is still rest.

THE DINNER OF THE STAFF OF THE FRAMINGHAM-UNION HOSPITAL

Members of the staff of the Framingham-Union Hospital, to the number of forty, held their first annual dinner at the Framingham Country Club on the evening of May 6. The singing was led by Judge Luby. The dinner was arranged for by a committee under the chairmanship of Dr. Newhall of Holliston. At the end of the dinner Dr. George Burgess Magrath entertained the company with a number of his lurid stories portraying the careful reconstruction work of the Medical Examiner for Suffolk County.

A DINNER OF THE MASSACHUSETTS PSYCHIATRIC SOCIETY

A dinner of the Massachusetts Psychiatric Society was held at the Hotel Statler on Thursday evening, May 1, and was attended by seventy-seven members and guests.

The occasion of the dinner was the visit to Boston of a number of visiting psychiatrists who were on the so-called Mental Hygiene Tour held before the First International Congress on Mental Hygiene at Washington. Dr. Briggs, the President, presided and acted as Toastmaster. Brief addresses were made by the visitors, who in felicitous phrases expressed their appreciation of the courtesies extended to them, and their admiration not only of the American hospitals for mental disease, but also for the marked development of extra-mural psychiatry. The following guests spoke:

Dr. Nora L. Haworth, Colchester, England; Dr. Oscar-Louis Forel, Switzerland; Dr. Andre Repond, Switzerland; Dr. Doris Odlum, London, W. I., England; Dr. Corrade Tumiati, Venice, Italy; Dr. F. S. Meiiers, Amsterdam-C, Holland; Dr. Georges Heuyer, Paris, France; Dr. M. H. Layman, San Francisco, California; Sir Hubert Bond, Commissioner, Board of Control, Westminster, S. W. I., London, England; Prof. Dr. Jan Piltz, Krakow, Poland; Dr. Reuben Holstrom, Sweden; Dr. Victor Wigert, Sweden, and Dr. Hans Evensen, Vinderen, Norway.

SANITATION OF SCHOOLS

The Department of the Interior has issued a leaflet setting forth the accepted rules for sanitation of schools.

This takes up the following subjects: Heating and Ventilating; Clothing and Wraps; Lighting, Cleaning, Washing Facilities, Toilets, Water Supply, Lunch Outfits, Playground and Fire Protection.

The language employed in this leaflet is clear, concise and could be read with profit by all who are interested in the sanitary problems of childhood.

MASSACHUSETTS LEGISLATIVE NOTE

SENATE—NO. 425

Senate, May 5, 1930.

The committee on bills in the third reading, to which was referred the House Bill to provide equitable relief and to prevent hardship in certain cases under the Workmen's Compensation Act (printed as Senate, No. 182, *changed*), reports recommending that the same be amended by substituting therefor a new draft entitled "An Act providing Judicial Relief in Case of Failure to Claim a Review within the Time Limited by the Workmen's Compensation Act" (Senate, No. 425), and that, when so amended, the same will be correctly drawn.

For the committee,
JAMES A. TORREY.

An Act providing Judicial Relief in Case of Failure to claim a Review within the Time limited by the Workmen's Compensation Act.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

SECTION 1. Chapter one hundred and fifty-two of the General Laws is hereby amended by inserting after section eight the following new section:—

Section 8A. A party who has by accident, mistake or through other reasonable cause, omitted to claim a review from a decision rendered under section eight within the time limited therein, may, within two years from the filing thereof, petition the superior court for the county in which the injury occurred, or for the county of Suffolk, for leave to claim such review, and the court may grant such petition and permit such claim to be filed if it finds that justice and equity require it, notwithstanding that a decree has previously been rendered on such decision as provided in section eleven.

SECTION 2. This act shall apply to all claims for compensation arising since the first day of January in the year nineteen hundred and twenty-nine.

CORRESPONDENCE

THE BOSTON CITY HOSPITAL

REVIEW OF THE SIXTY-FIFTH ANNUAL REPORT

Editor of the *New England Journal of Medicine:*

Herewith please find a statement of the work of the departments of the Boston City Hospital.

PERSONNEL

The Boston City Hospital Medical and Surgical Staff number 165, the temporary Assistants to the Visiting Staff, 50; House Officers, 69; Hospital Officers and Executives, 32; Medical and Administrative Assistants 39.

FINANCES

The City appropriation for maintenance of all departments of the Hospital except the Sanatorium Division was $2,109,960.07. The interest received from trust funds applicable to maintenance was $2,594.96. Adding the deficit of $73,073.48, shows the expenditures of all departments except Sanatorium Division $2,185,628.51.

The City appropriation for maintenance for the Sanatorium Division was $419,370.49. Deducting the balance returned to the City Treasury, $38,487.79, shows the expenditure of the Sanatorium Division $380,882.70.

The per capita cost per patient at the Main Hospital (after deducting cost of permanent improvements and extraordinary expenditures) was $4.51 per day; at the South Department, $4.90; at the Sanatorium Division, $2.90; at the Relief Stations, $4.57; at the Convalescent Home $3.66. The cost per visit per Out-Patient was 66 cents at the Main Hospital; $2.70 at the Haymarket Square Relief Station and $1.92 at the East Boston Relief Station. The cost per patient for uncooked food supplies in all departments except Sanatorium Division was $0.55 per day. At the Sanatorium Division it was $0.61.

The revenue received during the year from paying patients, rental of the West Department by the United States Government, sale of bones, trimmings and old material, occupational therapy, sale of articles, etc., amounted to $78,746.85 for all departments except the Sanatorium, and to $81,341.81 for the Sanatorium Division. This revenue was turned in to the City Treasury and was not available for maintenance.

PATIENTS

1,451 patients were in the wards of The Boston City Hospital and all its Departments the first day of January 1928. During the year, 27,919 were admitted. Of these, 2,231 died and 25,802 were discharged, leaving 1,337 in the wards on January 1, 1929. In all the Hospital branches 85,626 out-patients were treated during the year, with a daily average of 1,118. These patients made a total of 337,611 visits to the hospital for advice and treatment. There was a total of 42,302 accident cases treated in the wards and Out-Patient Departments during the year. The number of major and minor surgical operations in the various departments was 9,220.

OUT-PATIENT DEPARTMENT

An economic survey of all new Out-Patients, which was completed in 1928, revealed the following facts: Sixty-two per cent. were able to pay admission fee, five per cent. were able to pay a private doctor and thirty-three per cent. were unable to pay anything.

Follow-up clinics previously established and maintained in the Out-Patient Department have been continued, the aim being to afford a member of the House Staff opportunities to carry on investigative work in any particular group of cases which interests him.

A food clinic has been established in conjunction with the Diabetic Clinic, also a Goitre Clinic has been started.

Student nurses are assigned to the Out-Patient Department for a period of six weeks. During this time, an attempt is made to teach them as much as possible. They can work in several clinics, can observe various procedures, such as metabolism tests, gastro-analyses, ultraviolet ray treatments, Bismuth and Salvarsan treatments, and are allowed conferences with Social Service Workers relative to their work. Special printed forms are available in each clinic on which the nurse records the observation and training which she has received in that department. The nurse in charge supervises her training and makes a report on her work and these reports are placed on file in the Training School office.

The Department of Immunology carries on its work of immunization of hospital employees. During the present year it has taken up the problem of immunization against respiratory infections. Immunization is carried on to protect the nurses from contracting typhoid fever, diphtheria and scarlet fever.

NEW SERVICES CREATED

The various Medical and Surgical House Services, the Social Service and the Hospital School for Children have functioned as usual. Some new features are mentioned below:

The Bone and Joint Service has been in existence since September 1928, under Dr. Frederic J. Cotton as Surgeon-in-Chief, Dr. Otto J. Hermann, Visiting Surgeon, Dr. Joseph H. Shortell, Assistant Visiting Surgeon and Dr. Joseph H. Burnett, Junior Visiting Surgeon. This service is housed in the new Surgical Building.

The Neuro-surgical Service was created by the Trustees in April 1928, with Dr. Donald Munro in charge. This service will furnish surgical coöperation to the Neurological Department. Beds, operating room, and laboratory space will be assigned to this service in the new Medical Pavilion now being constructed.

The Afternoon Medical Out-Patient Clinic has been operative since October, 1928, under Dr. G. R. Minot. The patients are those whose problems require more than the average attention from a physician. They come from the morning medical and neurological clinics; from the Thorndike Laboratory, and the Fourth Medical Service.

In addition to the main clinic, groups of special cases are seen: anemia patients by Dr. W. B. Castle and patients with neoplastic conditions by Dr. Henry Jackson, Jr. Undoubtedly some of these patients are saved from entering the wards by the study and time devoted to them here. Simple routine investi-

gative problems are being studied in an effort to learn more about early symptoms and early diagnosis of diseases.

Three physicians, one being a Resident, together with three or four fourth-year medical students, carry on this work.

HOSPITAL MUSEUM

Plans are being made for suitable housing for the Hospital Museum which is now in a confused condition on account of lack of quarters.

X-RAY DEPARTMENT

During the coming year, the hospital will establish a Tumor Clinic. Also, there will probably be installed in the Out-Patient Department a small x-ray unit, so that x-ray examinations for Out-Patients may be made as quickly as possible.

DEPARTMENT OF PHYSICAL THERAPEUTICS

The hydrotherapy subdivision of the Department of Physical Therapeutics has been established in new quarters. An entirely new division—the muscle training room—has been added. The room is equipped with modern apparatus employed for the restoration of function.

NEW POSITIONS CREATED AND NEW RULES MADE

The following new positions have been created on the Medical and Surgical Staff: Director of Surgical Research, Associate Surgeon to the Harvard Surgical Teaching Service, four positions for Junior Visiting Physicians, four positions for Junior Visiting Surgeons for Gynecology and Obstetrics, two positions for Visiting Physicians for Physical Therapeutics and two positions for Assistant Visiting Physicians for Physical Therapeutics.

Five additional positions have been created for Residents.

The number of House Officers on each Medical Service has been increased from five to six. The number of House Officers on the Gynecological and Obstetrical Service has been increased from four to six.

A Public Relations Committee has been created. This consists of a member of the Board of Trustees, the Superintendent, a member of the Surgical Visiting Staff, a member of the Medical Visiting Staff and such person or persons as the Trustees may appoint. All publicity communications have to be submitted to and acted upon by this Committee.

The rule has been made that no more children be admitted to the Sanatorium Division, the children already there to be gradually eliminated through discharge.

NEW CONSTRUCTION

A new Surgical Building of steel construction, built in the form of a Roman cross, was erected in 1928. The basement contains the indoor branch of the Department of Physical Therapeutics with rooms for bath, massage, muscle training, light therapy, arm and leg bath, douches and showers with cabinets for electric baths. The first floor is an accident ward and is divided for males, females and children, with each bed in a cubicle. On this floor are two shock rooms for patients. There are four floors for female patients, each ward containing 28 beds.

The new Residence for House Officers is seven stories with basement and contains 128 rooms for house officers and residents. In the basement are two squash courts, a swimming pool, dressing rooms, locker rooms and showers. On the first floor is the dining room, which is so built that it may be used as a cafeteria. There are galleries for the squash courts on this floor, also a five-position switchboard has been installed. On the mezzanine floor an apartment of five rooms has been built for the Assistant Superintendent, also a lounge and a card room, and a quiet room for reading. On the southeast and southwest corners of the top floor are sun rooms.

During the year 1928, $245,170.18 has been expended for additions and alterations to the Hospital Power Plant.

The plans which the Trustees made in 1927 for improvements at the Sanatorium Division have resulted in the granting of the $1,400,000 City appropriation for erection and equipment of new buildings. With this money, a new Nurses' Home, also a Men's and Women's Open Air Ward Building are being constructed. As soon as possible an Admission Building, a Dining Room and Kitchen Building and a Garage will be erected. New furniture, new awnings, a change on the dietary, the purchase of plants, flowers, books and pamphlets have brought cheer to the patients.

TEACHING

The teaching of Medical Students has continued as usual during the year.

The Fourth Medical Service, a Harvard teaching service, has an arrangement with the Medical School whereby fourth-year students are regularly assigned to service for a period of from one to three months. These students, as clinical clerks, form an integral part of the Staff and thus contribute to the effectiveness and completion of the work.

Much teaching is done in the Pathological Laboratory where every member of the Staff is on the faculty of either Harvard or Tufts Medical School.

Lectures for Harvard Medical School continue to be given in gynecology and obstetrics and for Tufts Medical School in obstetrics.

In the Blood Laboratory, some technical teaching is done and assistance rendered to members of the Staff preparing cases for presentation before students and various clinical meetings at the Hospital.

PUBLICATIONS AND ADDRESSES

The members of the Medical and Surgical Staff of the Hospital published over one hundred books and articles on medical and scientific subjects during the past year. They also gave more than one hundred and fifty lectures and addresses before various medical societies and medical conventions. The subjects of these publications and addresses are listed in the annual report.

SPECIAL INVESTIGATION

Clinical investigation is an important feature of the Hospital work. A list of special studies pursued during the year follows:

By Dr. Hermann L. Blumgart with Dr. Soma Weiss: Studies on circulation which particularly concern the velocity of blood flow.

By Dr. Hermann L. Blumgart with Dr. Albert W. Bromer: The maintenance dose of digitalis.

By Dr. Hermann L. Blumgart with Dr. H. G. Wolff: Velocity of the intracranial blood flow.

By Dr. Hermann L. Blumgart with Dr. S. L. Gargill: Circulatory response to disorders of the thyroid gland and also to anemia.

By Dr. Hermann L. Blumgart with Dr. Arthur S. Ernstene: The relationship of orthopnea and venous pressure.

By Dr. Hermann L. Blumgart with Dr. C. P. Rhoades: Osteoblastoma.

By Dr. Hermann L. Blumgart with Drs. John R. Campbell and S. L. Gargill and Mrs. Gilligan: Treatment of diabetes insipidus.

By Dr. Hermann L. Blumgart with Dr. S. L. Gargill: Three cases of sino-auricular block. (The only three cases known in which the diagnosis has been made early enough to permit pharmacological studies.)

By Dr. Hermann L. Blumgart with Dr. S. L. Gargill and Mrs. Gilligan: Investigation of osteomalacia.

By Dr. Arthur C. Ernstene with Drs. Joseph T. Wearn and Albert W. Bromer: Capillaries of the lung.

By Dr. Arthur C. Ernstene: Various aspects of the sedimentation rate of the red blood corpuscles, especially in acute rheumatic fever.

By Dr. William B. Castle and Dr. Wilmot C. Townsend: Origin of disorders associated with gastro-intestinal function or a deficiency of certain food elements.

By Dr. William B. Castle with Drs. Edwin F. Gildea and Stanley Cobb: Mechanism and nature of neurological disturbances associated with altered digestive function in certain disorders dependent upon deficient diets.

By Dr. William B. Castle with Dr. Stacy R. Mettier: Pathology of the bone marrow.

By Dr. Wilmot C. Townsend: Blood formation in scurvy. Certain aspects of sprue, pellagra and scurvy.

By Dr. William B. Castle and Mr. Bowie: Studies which made it possible for the patient in his own kitchen to obtain from liver a palatable and economical extract of high potency.

By Drs. George R. Minot and William B. Castle with Drs. Clark Heath, Stacy R. Mettier and Wilmot C. Townsend: Further observations on treatment of pernicious anemia with preparation of liver. (These studies include the attempt to learn the nature of the effective substance in coöperation with Dr. Edwin J. Cohn of Harvard Medical School.)

By Dr. Stacy R. Mettier: Pathology of the liver in pernicious anemia. (Observations concerning iron metabolism.)

By Dr. Clark Heath with Miss Daland and Dr. George R. Minot: Influence of various substances on immature red blood cells as well as certain biological properties of these cells in health and disease.

By Drs. Clark Heath and George R. Minot: Observations concerning possible influence of certain food substances in leukemia.

By Dr. Gulli Lindh Muller: Influence of liver extracts on the growth of embryonic blood cells and chick embryos. Influence of various foods in experimental anemia that should help to unravel clinical problems at hand. Study of the blood of 25 patients showing that changes in the amounts of certain lipoid substances in the blood are intimately associated with the onset of the remission in pernicious anemia.

By Miss Daland: Comparison of the cell content of venous and capillary blood, and determination of the normal fluctuations in red cells. Observations concerning the life processes of different sorts of white blood cells. This work is being correlated with some of Dr. Eugene C. Glover's.

By Dr. Eugene C. Glover: Studies of chemical metabolism of blood cells indicate that cells of different sorts and ages behave in distinctive ways; information of service in attempting to understand the nature of changes in cancer.

By Dr. Henry Jackson, Jr.: Problem of cancer. Relation of vitamins to cancer.

By Dr. Henry Jackson, Jr., with Drs. Eugene C. Glover and Samuel S. Ellis and F. J. Parker, Jr.: Malignant disorders of the lymphoid tissues.

By Drs. Eugene C. Glover and Samuel S. Ellis with Dr. Frederic Parker, Jr.: Action of certain preparations of sera on normal and diseased lymphoid tissues.

By Dr. Albert G. Young and Dr. F. H. L. Taylor: The cancer problem along chemical lines.

Dr. Robert N. Nye and Dr. David Seegal: Importance of bacteria known as non-hemolytic streptococci in acute rheumatic fever.

By Dr. Robert N. Nye with Dr. Frederic Parker, Jr.: Experimental monocytosis caused by repeated injections into rabbits of various dead bacteria.

By Dr. Robert N. Nye: Factors that govern non-specific resistance to infectious agents.

By Dr. Soma Weiss: Hypertension and arteriosclerosis from the pathologic-physiological point of view. Cardio-vascular disorders. Velocity of the blood flow. Influences of a combination of substances on blood pressure (experimental study on cats).

By Dr. Soma Weiss with Dr. George P. Robb: Simple method of determining the blood flow by noting the effect of histamine on the minute blood vessels. Extensive observations on histamine in man.

By Dr. Soma Weiss and Dr. David Davis: A useful method for the alleviation of visceral pain and

studies of the path of the afferent visceral impulses in the spinal cord.

By Dr. Soma Weiss with Dr. Max Hochrein: Observations on the diagnostic value of the way air is expired from the lungs.

By Dr. Lawrence B. Ellis with Dr. Soma Weiss: The dynamics of the circulation in arterial hypertension and arteriosclerosis. (Several concrete related problems including studies on the cardiac output. They have demonstrated the fact that although the capillary blood pressure is normal in patients with arteriosclerosis and essential hypertension, the arteriolar blood pressure is normal in arteriosclerosis but unusually high in hypertension. The body thus compensates with a rise in arterial blood pressure in order to maintain a normal capillary blood flow.)

By Dr. Soma Weiss with Dr. George K. Mallory: Morphologic changes in the small and large blood vessels in vascular disorders. Ulcerative lesions on the cardia of the stomach.

By Dr. Albert W. Bromer with Dr. Soma Weiss: Pathologic physiology of cardiac asthma.

By Dr. Albert W. Bromer with Dr. Hermann L. Blumgart: Digitalis.

By Dr. Albert W. Bromer with Dr. Joseph T. Wearn: Blood vessels of the heart and lungs.

By Dr. Joseph T. Wearn: Circulation of the heart concerning the blood vessels of the muscle and the valves. To determine the part the blood supply to the muscle plays in heart failure.

By Dr. Albert W. Bromer with Miss Zschiesche under Dr. Joseph T. Wearn: Relationship of the blood vessels to the valves in endocarditis.

By Dr. Stacy R. Mettier: Has shown by a new method the connections of the Thebesian vessels with the heart curtains, and studies are to be carried out by Dr. Wearn and Dr. Mettier to determine the part these vessels play in the circulation of the heart in health and disease.

By Drs. Joseph T. Wearn and Albert W. Bromer: Lung capillaries in experimental animals. Normal behavior of lung vessels with a view to using this information in the study of the diseases of the lungs. Observations on the action of various substances are being undertaken. Efforts are being made to secure cinematographic records.

By Dr. John S. Lawrence: Disorders of liver function. (Relationship between the monocytes in the peripheral blood and liver disease.)

By Dr. James M. Faulkner: Investigations concerning the heart. Some unusual aspects of sinus-arrhythmia.

By Dr. Percy B. Davidson: Absorption of materials in the large bowel.

By Dr. Hathaway: Reaction of animal bone marrow to nuclein.

By Dr. Edwin A. Locke, Dr. Maurice Fremont-Smith and Dr. George P. Reynolds: Certain aspects of peptic ulcer and psycho-neurosis.

By Dr. Tracy J. Putnam: Cause of multiple sclerosis. He has organized a special laboratory for the observation of the changes in the optic nerves in cases of multiple sclerosis.

By Dr. William G. Lennox (Dr. A. Myerson has collaborated in part of this work): The metabolism of epilepsy.

By Dr. Abraham Myerson (Dr. Lennox has collaborated in part of this work): Metabolism of the brain as determined by jugular puncture. (Research at the Boston State Hospital.)

By Dr. Frank Fremont-Smith: Nature of fluid changes in the body and their relationship with edema, nephritis, fever and the like.

By Dr. Franklin W. White and Dr. I. R. Jankelson: Two cases of late intussusception of the bowel into the stomach after gastro-enterostomy. Two cases of chronic jejunal obstruction due to the tuberculosis of the jejunum.

By Dr. Percy B. Davidson: Effect of a non-specific protein (Aolan) in the treatment of gastric and duodenal ulcer. The effect of four to eight ounces of lactose given in specially prepared ginger ale in changing the intestinal flora in a series of cases.

By Dr. I. R. Jankelson: A series of cases of acute intestinal obstruction caused by a stone in the ureter.

Dr. Frank Fremont-Smith and Dr. Tracy J. Putnam instituted a new treatment for traumatic meningitis —that of constant drainage of the spinal canal. Dr. Smith has organized a spinal fluid laboratory where he gives expert reports to anybody in the Hospital who brings him spinal fluids with adequate data.

Dr. Maxwell E. MacDonald tries to make a neurological examination on all cases of syphilis, this being a new departure.

AGNES G. WRIGHT, *Statistician.*

THE OPENING EXERCISES OF THE ADDITION TO THE PONDVILLE HOSPITAL

May 2, 1930.

New England Journal of Medicine,
Gentlemen:

On May 20 at eleven o'clock His Excellency Governor Allen will attend the opening exercises of the addition to our Pondville Hospital. This is part of the Governor's welfare program as enunciated in his first message to the Legislature. Other speakers will include Dr. C. C. Little of the American Society for the Control of Cancer, Dr. Robert B. Greenough, President of the State Medical Society and from the first an invaluable advisor to the Department in its cancer program, Mrs. Ralph Bullard, Chairman of the Pondville Hospital Social Service Committee, Dr. Ernest M. Daland, Chief of the Pondville Visiting Staff, Representative William J. Bell, who has been most actively interested in the cancer program from its inception, and Dr. George M. Sullivan, Superintendent of the Hospital.

As this will about mark the third year of the Cancer Hospital and as the demand for increased beds and especially increased clinic space indicates the usefulness of the institution, it will be an appropriate time to review progress in the State under this program. Through your columns we would like to invite any physicians who may care to attend,

since the ultimate accomplishments in this field must come through the private office because the vast volume of early cancer is first seen in these offices.

Yours truly,

GEORGE H. BIGELOW, M.D.,
Commissioner of Public Health.

A QUESTION OF SPECIAL PRIVILEGES FOR PHYSICIANS

May 2, 1930.

Editor, *New England Journal of Medicine*,
165 Newbury St.,
Boston, Mass.

Dear Editor:

The *Boston Globe* on Sunday, April 20, 1930, published an article on the system employed in Philadelphia of impounding automobiles to keep the streets clear of illegally-parked motor cars. Notwithstanding this system I find, through inquiry, that physicians there have official recognition such as we in Boston do not receive, although as I have previously stated in a letter to the *Journal*, courtesy prevails at the hands of the Boston Police.

May I ask through the medium of the *Journal* why some arrangement similar to the one that obtains in Philadelphia could not be instituted in Boston.

Yours very truly,

G. PRAINO, M.D.

Department of Public Safety
Bureau of Police
Philadelphia

Wm. B. Mills, Superintendent
Room 225 City Hall

April 26, 1930.

Gaetano Praino, M.D.
273 Broadway,
Boston, Mass.

PHYSICIANS GREEN CROSS TAGS

Receipt is hereby acknowledged of your letter of the 21st instant, in which you ask to be informed as to what privileges Philadelphia physicians have relative to parking their cars on restricted streets.

In reply thereto, permit me to advise you that a physician's automobile carrying a Green Cross Tag is permitted to park on restricted streets while the doctor is engaged in making a necessary call upon a patient or attending a hospital.

A medical doctor practicing in this city can obtain upon application to the Philadelphia County Medical Society, a Green Cross tag and card for the purpose of identifying his automobile. These tags bear numbers and the names and addresses of the holders are on file in this office.

W. B. MILLS, *Superintendent.*

EDITORIAL NOTE: Officers of the Massachusetts Medical Society have interviewed police officials. The police, we believe, wish to extend every possible courtesy but do not feel that they have the right to make exceptions.

RECENT DEATHS

ALLEN—DR. FREEMAN ALLEN, anesthetist, died at his home in Boston, May 3, 1930, aged 59. He had been in poor health for the past two months.

He was born in Stockbridge, Sept. 27, 1870, the son of the late Rev. Henry Freeman and Georgiana May (Stowe) Allen, and a grandson of Harriet Beecher Stowe. Dr. Allen was graduated from Harvard College in 1893 and from the Harvard Medical School in 1899. He had been in practice in Boston since 1899. He was chief of the department of anesthesia at the Massachusetts General Hospital and for many years was a lecturer on anesthetics at Harvard Medical School.

For nearly two years Dr. Allen was associated with the late Maj. Gen. Leonard A. Wood in Cuba and was one of the young physicians who subjected themselves to yellow fever tests. He went abroad many times for study.

His favorite recreations were mountain climbing and horseback riding. He was a member of the Alpine Club of London and had climbed many of the highest peaks in the Alps. He also was a member of the Swiss Alpine Club and the Harvard Mountaineering Club.

Dr. Allen frequently exhibited mounts in horse shows around Boston. He owned Talk of the Town, winner of many blue ribbons at Chestnut Hill and elsewhere. Dr. Allen was a member of the Norfolk Hunt Club, New Riding Club. He also was a member of the Tennis and Racquet Club, Somerset and Nahant Clubs.

Dr. Allen married Ethel Gibson of Boston in 1910. He leaves his wife and a son, Henry Freeman Allen, a student at St. Mark's School.

CROFT—DR. BENJAMIN POMEROY CROFT, ophthalmologist and aurist, died of a cerebral hemorrhage at the Farren Memorial Hospital, Greenfield, April 29, 1930, at the age of 59.

He was a native of Stonington, Connecticut, where he was born January 2, 1871. He was left an orphan when he was six years old. As a boy he had many struggles for an education and said in after life that he had gained much information while listening to the talk in a grocery store where he was clerking. He learned Latin by studying evenings and finally, at the age of 22, succeeded in passing the regents' examinations for entrance to Bellevue Hospital Medical College in New York City. His health and his finances gave out and it was not until 1897 that he received his much coveted M.D. degree. After serving for a year as assistant to one of the surgeons of the Manhattan Eye and Ear Hospital Dr. Croft settled in Greenfield and devoted himself to the practice of diseases of the eye, ear, nose and throat. He joined the Massachusetts Medical Society and was secretary and treasurer of the Franklin District Medical Society in 1901 and 1902 and councilor in 1903 and 1904. In 1922-25, he was supervising censor and councilor from the Franklin District. He was a member of the New England Ophthalmological Society.

Dr. Croft was an idealist and a Democrat in a

strongly Republican district. Serving as secretary of the Democratic town committee for many years he ran for State Senator some three years ago, and was satisfied to hold up a minority party. He formed his own opinions and was respected for his independence. Dr. Croft was instrumental in founding a cancer clinic in Greenfield and in maintaining it, acting as secretary and treasurer. One of his favorite pastimes was fishing and his camp on the bank of the Connecticut river at Gill was the family home during the summer months, and he was a member of the nominating committee of the Greenfield Rod and Gun Club.

The year he settled in Greenfield Dr. Croft married Miss Adria L. Lantz of Rockland. She and five children survive him.

WILLIAMS—Dr. Joseph Williams, a long time practitioner of Charlestown and Dorchester, died suddenly at his home in the latter suburb, May 4, 1930, at the age of 79. He was a native of London, Ontario, took his M.D. at McGill University in 1881 and settled the next year in Charlestown, when he joined the Massachusetts Medical Society. Of late years he had devoted himself to ophthalmology, otology and laryngology. His wife died several years ago.

NEWS ITEMS

THE AWARD OF A MEDAL TO DR. GEORGE R. MINOT—The National Institute of Social Sciences conferred a gold medal on Dr. George Richards Minot, Director of the Thorndike Memorial Laboratory, May 8, 1930, "in recognition of his invaluable work in connection with the treatment and control of pernicious anemia".

Dr. Minot received the appointment of Director of the Thorndike Laboratory after the death of Dr. Francis Peabody. He has brought especial distinction to Boston in developing methods of treatment of anemia which have been endorsed by the medical profession throughout the world.

THE AWARD OF THE SAMUEL D. GROSS PRIZE—The Samuel D. Gross Prize, of the Philadelphia Academy of Surgery, has been awarded by the Trustees to Dr. Emile Holman, Stanford University Hospital, San Francisco, Calif., for his essay on "Abnormal Arteriovenous Communications".

THE SUSPENSION OF THE REGISTRATION OF DR. ETTORE PITASSI—On May 8, 1930, the Board of Registration in Medicine suspended the registration of Dr. Ettore Pitassi for 90 days because of gross misconduct and deceit in connection with the settlement of an automobile accident case.

NOTICE

PROPEDEUTIC MEDICAL CLINIC

Hopital de la Charité
37, rue Jacob, Paris
Professor Sergent

This clinic will consist of ten lectures on the diseases of the lung with x-ray projections and anatomical specimens, each lecture being followed by practical demonstrations by MM. Bordet, Turpin, Kourilsky and Benda, occupying the positions of former clinical chiefs and clinical chiefs of the clinic.

Lectures will take place from October 20 to October 25 inclusive.

The afternoon will be devoted to theoretical lectures (from 2.30 p. m. to 3.30 p. m. and from 4 p. m. to 5 p. m.).

In the morning practical demonstrations will be held in the wards under the guidance of Professor Sergent.

PROGRAM

Dr. F. Bordet: Lipiodol in the diagnosis of the diseases of the respiratory tract.
Dr. F. Bordet: Bronchiectasis (one lecture).
Dr. Kourilsky: Abscess of the lung.
Dr. Kourilsky: Gangrene of the lung.
Dr. Turpin: Carcinoma of the lung (primary).
Dr. Turpin: Carcinoma of the lung (secondary).
Dr. Benda: Syphilis of the lung.
Dr. Benda: Syphilis and tuberculosis.
Dr. Turpin: Mechanism of the tuberculous infection of the lung.
Dr. Kourilsky: Tuberculosis of the lung and the new data on the tubercle Bacillus.

Fees: 500 francs.

A certificate, signed by the Professor and the Dean of the Faculty of Medicine of Paris, will be delivered after the course to every doctor who has attended it regularly.

For further information and registration, apply to the "Association pour le Développement des Relations Médicales" Salle Béclard, Faculté de Médecine, Paris 6e.

REPORTS AND NOTICES OF MEETINGS

BRISTOL COUNTY ORTHOPAEDIC CLUB

The Bristol County Orthopaedic Club held a meeting at the Quequechan Club, 306 North Main Street, Fall River, Mass., April 29, 1930, at 6 P. M. The members were guests of Dr. C. C. McCreery. A dinner was served and Dr. Frank R. Ober, surgeon of Children's Hospital, Boston, gave a most interesting talk on "Stabilizing Operations on Ankle and Foot".

The following members were present: Drs. Edward W. Burt, Thomas B. Horan, G. G. Pearce, J. B. Webster of New Bedford; Dr. Roland B. Hammond of Providence. Drs. Earle E. Hussey, Clarence C. McCreery, Benjamin S. Kaufman, J. V. Sullivan and Alfred Ledoux of Fall River, Mass., the latter being Orthopaedic surgical interne at the Fall River General Hospital.

ASSOCIATED BOARDS OF HEALTH OF SOUTHEASTERN MASSACHUSETTS

At the meeting of the Associated Boards of Health of Southeastern Massachusetts at Hyannis on April 30, the principal topic for discussion was whether smallpox patients should be given places in the hospital for contagious diseases. Dr. H. S. Wagner, su-

perintendent of the Pocasset Infirmary, was the principal speaker, outlining the work of his institution, which is maintained by Barnstable County. With reference to a case of smallpox, Dr. Wagner stated that the commissioners had refused to permit it to enter his hospital. This statement was the pivot for arguments that filled the major part of the afternoon session. Charles R. Bassett of the Board of Health of Yarmouth, spoke as one of the originators of the legislation establishing the institution, and stated that the idea of these men was to establish a hospital for all the contagious diseases. As a member of the Board of Trustees of the hospital G. Webster Hallet, president of the association and health officer of Barnstable, said that while the idea of caring for smallpox in such an institution may be sound theoretically, there is the practical difficulty, that patients fear the word "smallpox", and the presence of a case in the hospital would have an unfortunate effect on those who were sick with other maladies.

Dr. H. P. Goff, local health officer of Barnstable County, said that in the Philippines he had had charge of a large hospital, some hundreds of beds, of the different contagious diseases, and thanks to the discipline that it was possible to maintain, there was no cross infection, "but discipline is an essential condition," said the speaker. Dr. R. P. MacKnight, State Health Officer for the southeastern district, noted that the modern tendency is to get away from the old idea of inability to care for contagious diseases in general hospitals.

Incidentally, in the discussion, W. G. Kirschbaum of the Board of Health of New Bedford, sketched the plan that his city has developed in the care of contagious diseases. There is equipped and manned a hospital for the more common maladies, and this is used whenever necessary. Independent of it is a smallpox hospital of a few beds, ready for emergency. It has a man and his wife resident in it, with small compensation, ready at any moment to devote their entire time to it, and should an exigency arise, the health department will not hesitate about adding to the force to whatever extent may be necessary. This lies clearly within the legal powers of a health department.

A considerable portion of the session was used in outlining some of the technical details in the management of hospitals for contagious diseases, the matter of immunization of nurses, for example, and the routine in visiting cases and leaving them, the latter of course to include proper care of the gown, the washing of hands, etc. Incidentally it was mentioned that tuberculosis is not quarantined, since no legislature can outline proper procedure in a disease of such varied development and present for so long a time in the individual. The best methods must include health education of the people, with whatever measures that can be adopted by the local board of health to protect the family and friends.

As a matter of business the committee on tuberculin-tested cattle reported. The effort is under way to make Barnstable county a district in which all the milk for sale shall be from tuberculin-tested cows. The boards of health have agreed upon the matter, and have sought means for preventing the coming of non-tested cows. One of the principal routes of possible entry is over the bridge in Bourne across the canal. Efforts on the part of the local associations and the State Department of Public Health, asking the coöperation of the Federal authorities in guarding the bridge have as yet had no result. Whether there were other means of effecting the general purpose through boards of health of towns through which cattle must pass was seriously discussed. The authorities of the Cape are thoroughly earnest in the matter.

THE SOUTH END NEIGHBORHOOD MEDICAL CLUB

The next regular meeting of the South End Neighborhood Medical Club will be held at the office of the Boston Tuberculosis Association, 554 Columbus Avenue, Boston, on Tuesday, May 20, 1930, at 12 noon.

The speaker will be Dr. A. R. MacAusland, Surgeon to Carney Hospital, Boston, and his subject will be "Arthritis:—Clinical Viewpoints and Methods of Treatments". The usual luncheon will be served.

All physicians are cordially welcome.

THE NEW ENGLAND ROENTGEN RAY SOCIETY

The Annual Meeting will be held Friday night, May 23, at John Ware Hall, third floor, Boston Medical Library, at 8:15.

Dr. G. W. Holmes has arranged to demonstrate a series of interesting cases at the Massachusetts General Hospital from 4:30 to 6:00. This is given particularly for the out-of-town members, but all members and guests are invited.

SCIENTIFIC SESSION

Dr. Leon T. LeWald, New York, will give a paper on "Errors of Diagnosis in Chest Lesions".

The paper will be discussed by Dr. G. W. Holmes, Boston, and Dr. P. F. Butler, Boston.

The usual dinner will be held at the Harvard Club at 6:30.

DR. THOMAS R. HEALY, *Secretary.*

370 Marlborough Street, Boston, Mass.

NEW ENGLAND PEDIATRIC SOCIETY

The May meeting of the New England Pediatric Society will be held on Friday, May 23, 1930.

PROGRAM

1. Clinical meeting with demonstration and discussion of patients in the Amphitheater of the Children's Hospital, 4 P. M. to 6 P. M.
2. Society dinner at Vanderbilt Hall, Harvard Medical School, at 6:30 P. M.
3. Evening program at the Boston Medical Library, 8:15 P. M.
   a. Business meeting.
   b. Inaugural address — Dr. Grover Powers, New Haven, Connecticut.

c. "Anemias in Childhood," Dr. Kenneth D. Blackfan, Dr. Louis Diamond, Dr. James M. Baty. Discussion by Dr. John Lovett Morse, Dr. George R. Minot and Dr. Lewis Webb Hill.

4. Refreshments.

GROVER POWERS, M.D., *President.*
GERALD HOEFFEL, M.D.,
Secretary and Treasurer.

HARVARD MEDICAL SOCIETY

The next meeting of the Harvard Medical Society will be held in the Amphitheatre of the Peter Bent Brigham Hospital on the evening of Tuesday, May 20, at 8:15.

PROGRAM

Presentation of Cases.

Paper on "Operations for Pulmonary Embolism" to be given by Professor Gunner Nyström of University of Upsala, Sweden.

WILLIAM P. MURPHY, M.D., *Secretary.*

ANNUAL MEETING OF A. M. A. AUXILIARY IN DETROIT—JUNE 23-27

Plans for the annual meeting of the National Auxiliary in Detroit, June 23-27, come on apace. The Auxiliary as an organization is occupied only with business affairs, and has nothing whatever to do with any social gatherings except the official Auxiliary luncheon. Its members are Mrs. William Gerry Morgan, D. C., Mrs. Olin West, Ill., Mrs. L. T. Harris, Mich., Mrs. Walter Jackson Freeman, Pa., and Mrs. Southgate Leigh, Va., Chairman. Mrs. Basil Loren Connelly is chairman of the Detroit committee for the convention proper, and Mrs. Burt Shurley of the social activities.

The Roof Garden of the Hotel Tuller, next to the Statler, will be headquarters for all Auxiliary business—registration, meetings, etc., and the Auxiliary luncheon on Tuesday, June 24. There will be no registration fee, but members will buy their own luncheon tickets—$1.50. The registration bureau will be open Monday, Tuesday and Wednesday, June 23, 24, 25, from 9-4, Thursday and Friday, June 26, 27, from 9-12. Programs, badges, etc., may all be procured here, and invitations, tickets and transportation cards must all be procured here *in advance*, as only programs may be procured elsewhere.

The meetings, as you all know, are open to every woman attending the convention, and under Mrs. Hoxie's leadership they are bound to be well worth the trip. There will be three morning sessions Tuesday, Wednesday and Thursday, June 24, 25, 26. The afternoons and evenings are all left free for sightseeing and social activities, for which many plans are in the making. Details have not yet been announced, but they include motor and boat excursions, and visits to some of the handsome private estates in the environs, including that of Mr. Henry Ford. The Detroit Museum of Art is among the best in the United States. No parties have been scheduled during business hours.

No one may represent her state in any capacity whose State dues are not fully paid. The Chairman of the Committee on Credentials and Registration is Mrs. Ledru Otway Geib, 3860 St. Clair Avenue, Detroit.

Only delegates may take an active part on the floor of the convention, but alternates should attend all sessions and hold themselves in readiness to take their delegates' places if necessary. All resolutions must be in writing and signed, and in the hands of the committee 24 hours before the session at which they are to be presented. Mimeographed copies will be distributed as the delegates take their seats. The Chairman of the Committee on Resolutions is Mrs. Augustus S. Kech, 218 Logan Avenue, Altoona, Pa.

Monday, June 23, 1930

2:30 P. M. Meeting of the Board of Directors—Statler Hotel.

All state presidents and presidents-elect are asked to time their arrival and stay in Detroit so as to be able to attend the Pre-Convention and Post-Convention Board Meetings.

Tuesday, June 24

9:00 A. M. Registration. Auxiliary Headquarters—Hotel Tuller.

9:30 A. M. Business Meeting.

Invocation.

Address of Welcome.

Response.

Report of Committee of Arrangements; Announcements.

Report of Entertainment Committee.

Adoption of Convention Rules.

Minutes of Seventh Annual Meeting.

Treasurer's Report.

Auditor's Report.

President's Report.

Committee Reports: Finance. Presentation of the Budget. Printing. Organization. Press and Publicity. *Hygeia.* Public Relations. Legislation. Program. Revisions. Historian.

New Business.

1:00 P. M. Luncheon, Hotel Tuller Roof Garden. Speakers will be announced later.

Wednesday, June 25

9:00 A. M. Registration, Hotel Tuller.

10:00 A. M. A Workers' Conference.

The Purpose of the Auxiliary.

The National Program.

Analysis of the Work of State Auxiliaries on the Basis of the Official Program of the National Auxiliary. Conducted by Mrs. Evarts V. De Pew, assisted by all State Presidents.

This discussion is planned to be a workers' conference in the real sense of the word. The discussion will be interesting and exhilarating to any doctor's wife; but it should be especially valuable to state presidents, presidents-elect, and committee chairmen, and to the corresponding county officers.

Business Meeting Continued.

Unfinished Business.

New Business.

Report of Credentials Committee.

Report of Nominating Committee.

Election of Officers.

Introduction of New Officers.

Adjournment, sine die.

Thursday, June 26

Mrs. J. Newton Hunsberger presiding.

9:00 A. M. Post Convention Board Meeting. All state presidents and presidents-elect should be at this meeting to assist the incoming president in planning the work of 1930-1931.

10:00 A. M. Round Table for State Presidents and Committee Chairmen. Chief Purposes of the State Annual Meeting. Adequate Preparation for the State Meeting. Agenda for the State Meeting. Duties of State Board Members,—Especially of the President and Committee Chairmen.

SOCIETY MEETINGS, CONGRESSES AND CONFERENCES

1929-1930—Massachusetts Dietetic Association. Complete schedule appears on page 852, issue of October 24, 1929.

March-October — International Medical Postgraduate Courses in Berlin. Complete notice appears on page 853, issue of October 24, 1929.

May 15—New England Hospital for Women and Children. Complete notice appears on page 935, issue of May 8.

May 15—New England Heart Association. Complete notice appears on page 934, issue of May 8.

May 20—Harvard Medical Society. Complete notice appears on page 981.

May 20—The South End Neighborhood Medical Club. Detailed notice appears on page 980.

May 22—Boston Dispensary. Detailed notice appears on page 934, issue of May 8.

May 23—New England Pediatric Society. Complete notice appears on page 980.

May 23—The New England Roentgen Ray Society. Detailed notice appears on page 980.

June 23-27—Annual meeting of the A. M. A. Auxiliary. Detailed notice appears on page 981.

June 23-July 12—The Fourth Public Health Institute. Complete notice appears on page 839, issue of April 24.

June 24—American Heart Association, Inc. Detailed notice appears on page 934.

July 10-12—The American Association for the Study of Goiter. Complete notice appears on page 935.

September 4-8—Fifth International Congress on Physiotherapy. Complete notice appears on page 906, issue of October 31, 1929.

October 27—The American Public Health Association. Detailed notice appears on page 1271, issue of December 19, 1929.

March 23-27, 1931—Fifteenth annual clinical session of the American College of Physicians. Detailed notice appears on page 790, issue of April 17.

BOOK REVIEWS

Nephritis, Its Problems and Treatment. By T. I. Bennett. Published by Oxford University Press. Price $1.85.

Any book on Nephritis as brief as this, commands attention. The book is well written and contains a fund of both practical and scientific information. The author has the happy faculty of combining knowledge drawn from his own experience with information gleaned from much of the best of the many research studies in this field.

The book is possibly somewhat limited in scope, but the subject matter includes most of the really important aspects of the disease. There are chapters on Uraemia, Oedema, Blood Pressure, Classification and Treatment. The author's attitude throughout is critical and argumentative; he is attempting to explain or to arrive at a rational conception of certain clinical phenomena. In this respect an important omission from the American literature is Foster's theory of a toxic nitrogen rest body as the cause of Uraemia. Absolute agreement with the author's conclusions is not always possible. For example, his enthusiastic championship of alkali therapy is not well differentiated in his book by clinical analyses. However, in general it can be said that the author's deductions are constructive and seldom dogmatic.

Peptic Ulcer. Annals of Roentgenology, Vol. X. By Jacob Buckstein, M.D. Paul B. Hoeber Publishing Company, New York, N. Y. 337 pages. Price $12.00.

This Publication is Volume X of a Series of "Monographic Atlases on Roentgenology," edited by James Case. The general character of the book compares favorably with previous issues.

The author has had a wide experience in his subject. The material is well arranged and the illustrations well chosen to illustrate the text. Some of them, however, are of rather poor quality. The volume contains 4 chapters and 287 illustrations. There is an introduction by Dr. Harold E. Santee, and a large well arranged reference to both the American and Foreign Literature.

The first chapter contains a history of the "Development of Roentgenological Contributions to the Knowledge of Gastric Ulcer," which should be read by every student of this subject.

Many of the illustrations are accompanied by a short history of the case with operative or postmortem finding, which adds considerably to the value of the book. Such recent additions to our knowledge of this subject as the diagnostic finding in the small fleck ulcers of the duodenum and ulcers occurring in the jejunum following gastroenterostomy, as well as the change which occurs in gastric ulcers under treatment are adequately discussed. On the whole the book is very good and should be of interest to all those engaged in the diagnosis or treatment of Peptic Ulcers.

The Normal Diet. By W. D. Sansum, M.D. Third Edition revised. The C. V. Mosby Co., St. Louis, 1930. Price $1.50.

Another edition of Dr. Sansum's book is a welcome addition to the literature on nutrition for physicians and patients. The present volume is a little more comprehensive than the last, particularly in regard to the vitamin and mineral requirements; but other factors of diet are also given consideration. In general he advocates sufficient bulky, alkaline ash, starches and sugars, protein, and mineral and vitamin-containing foods. Each of these factors is discussed in a chapter of the book, and then "sample menus" of each kind of diet are given in the last chapter. The chapter on the acid and alkaline ash foods is perhaps the most illuminating, as this phase of nutrition has not yet been given a great deal of consideration. Some of the menus contain a great deal of fruit—especially oranges and grapefruit, which if consumed for very long seem likely to produce an irritable colon. In the appendix are height and weight tables. The book is recommended for practitioners, nurses, and the laity.